REFOCUSING HEALTH SERVICES

Alabama
Department
of
Public
Health

1981 Annual Report

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State of Alabama
DEPARTMENT OF PUBLIC HEALTH
State Office Building
Montgomery, Alabama 36130

IRA L. MYERS, M.D.
STATE HEALTH OFFICER

July 19, 1982

The Honorable Fob James
Governor of Alabama
State Capitol
Montgomery, Alabama 36130

Dear Governor James:

Good health is an essential ingredient of quality living. This fact is often not appreciated until we face a specific health problem. The Declaration of Independence refers to the "pursuit of happiness," and this pursuit requires a balance of health - physical, mental, and social.

The State Health Department is dedicated to promoting good health for all people, both residents and nonresidents. This report summarizes our experience in meeting the challenges assuring adequate, accessible health care for all Alabamians. These activities touch the life of every citizen and visitor.

Changes in the economy and funding mechanisms have resulted in the selection of priorities and a careful analysis of the most urgent public health issues which would conserve available resources and best meet the needs of the entire population in the most efficient manner.

With appreciation to the many people who have made this report possible, I am pleased to present it to you.

Sincerely yours,

Ira L. Myers

Ira L. Myers, M.D.
State Health Officer

STATE COMMITTEE OF PUBLIC HEALTH

Carl A. Grote, Jr., M.D.,
Chairman, Huntsville

Edgar W. Branyon, Jr., M.D.
Vice Chairman, Anniston

Ira L. Myers, M.D., M.P.H.
State Health Officer & Secretary
Montgomery

Jeff H. Beard, M.D.
Mobile

William R. Bridges, M.D.
Mobile

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Tuscaloosa

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Birmingham

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Birmingham

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Opelika

R. Ross McBryde, M.D.
Montgomery

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Disease & Medical Care
Margaret Millsap, Ed.D.
Birmingham

Ira B. Patton, M.D.
Oneonta

W. Earle Riley, M.D.
Fairfield

Council on Health Costs,
Administration &
Organization
Kenneth G. Robinson
Birmingham

Council on Animal &
Environmental Health
Paul Schnurrenberger, D.V.M., Ph.D.
Auburn

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Russellville,

Kenneth C. Yohn, M.D.
Eufaula

Betty W. Vaughan, M.D.
Public Health Area I

E. Kenneth Aycock, M.D., M.P.H.
Public Health Area II

William L. Roper, M.D., M.P.H.
Public Health Area III

Robert J. Henderson, M.D.
Public Health Area IV

Joyce Gendzwill, M.D.
Public Health Area V

Tom N. Phillips, M.P.A.
Public Health Area VI

H. E. Harrison, B.S., M.P.H.
Bureau of
Area Health Services

James L. Holston, Dr.P.H.
Clinical Laboratory
Administration

Beverly Boyd, M.D.
Bureau of
Maternal and Child Health/
Family Planning

James M. Richard, B.S.
Bureau of Nutrition

Grover Dick, M.A.
Bureau of
Preventive Health Services

STATE HEALTH OFFICERS, ADMINISTRATION AND BUREAU DIRECTORS

Ira L. Myers, M.D., M.P.H.
State Health Officer
Administration

Naseeb L. Shory, D.D.S., M.P.H.
Bureau of Dental Health

William T. Willis, M.S.
Environmental
Health Administration

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Bureau of Epidemiology

Tigner S. Zorn, B.S.
Bureau of Licensure
and Certification

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Bureau of
Public Health Nursing

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Special Services Administration

James D. Pate, M.B.A.
Bureau of
Health Data Systems

James J. McVay, M.P.A.
Bureau of
Primary Prevention

ADMINISTRATION

ADMINISTRATION

A major organization change in public health administration was effected in 1981. The state was divided into six public health areas which coincide with the established health systems areas, except that Russell County was included in PHA V. (In the federal designation of HSAs, it was included in Health Systems Agency of Central Georgia.) Assistant state health officers who answer directly to the State Health Officer were appointed to direct and supervise health services in these areas. They also serve as the health officer in the counties which do not have one. Chart 1-1 indicates the public health areas and gives the five current assistant state health officers and the administrator for the other area.

CHART 1-1
PUBLIC HEALTH AREAS

PHA I
Betty W. Vaughan, M.D.
Box 1628, Decatur 35602
Phone 353-7021

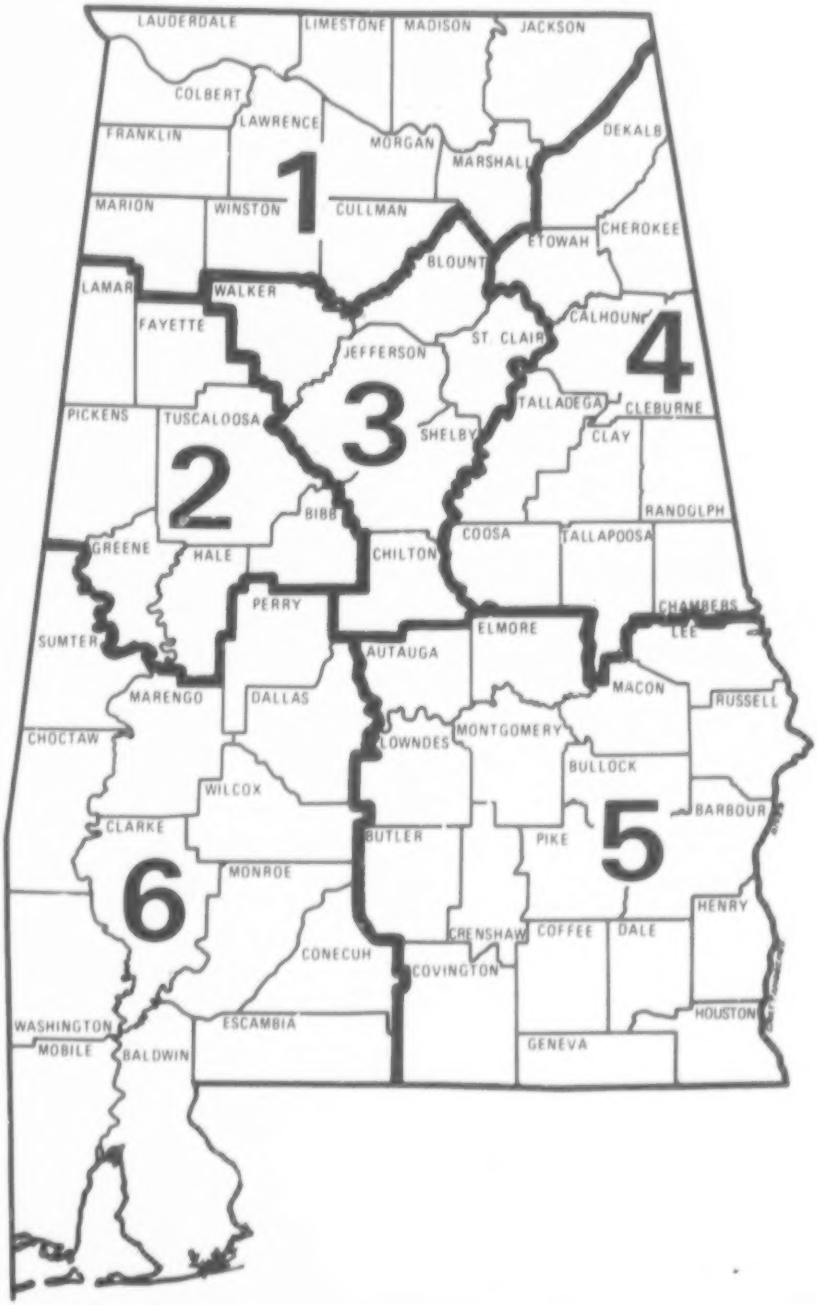
PHA II
E. Kenneth Aycock, M.D.
1101 Jackson Ave.,
Tuscaloosa 35401
Phone 345-4131

PHA III
William L. Roper, M.D.
Box 2646, Birmingham 35202
Phone 933-9110

PHA IV
Robert J. Henderson, M.D.
Box 488, Anniston 36202
Phone 236-3274

PHA V
Joyce Gendzwill, M.D.
State Office Building, Room 900
Montgomery 36130
Phone 832-3376

PHA VI
Tom N. Phillips
State Office Building, Room 307
Montgomery 36130
Phone 832-3186


LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
FRANKLIN
MORGAN
MARSHALL
DEKALB
1
MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
BLOUNT
LAMAR
WALKER
FAYETTE
ST. CLAIR
CALHOUN
4
JEFFERSON
3
TALLADEGA
CLEBURNE
PICKENS
TUSCALOOSA
SHELBY
CLAY
2
RANDOLPH
BIBB
COOSA
TALLAPOOSA
GREENE
HALE
CHILTON
PERRY
CHAMBERS
SUMTER
ELMORE
LEE
AUTAUGA
MARENGO
DALLAS
MACON
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
BULLOCK
WILCOX
BARBOUR
CLARKE
5
BUTLER
PIKE
MONROE
6
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
WASHINGTON
ESCAMBIA
HOUSTON
MOBILE
BALDWIN
GENEVA

Concurrently several programs were decentralized. These included tuberculosis control, venereal disease control, hypertension, immunization, maternal and child health, family planning, and dental health.

Closer medical supervision in the county health departments was a primary objective of the change. Flexibility in scheduling and better utilization of personnel are other advantages of decentralization. It is anticipated that these modifications will be more efficient and effective in delivering services and will permit the adjusting of services to meet local needs.

Funding of public health activities also sustained alterations with the shift in allocating of categorical federal funds to block grants to the state. Block grants combined categorical programs, reduced federal regulations and decreased funds. The Preventive Health and Health Services Block Grant combined the programs of hypertension, emergency medical services, rodent control, health education-risk reduction, fluoridation, home health services, health incentive and rape prevention. The initial grant awarded for the preventive block was 21 percent less than the fiscal year 1981 categorical expenditures for these programs.

The State Committee of Public Health continued its evaluation of existing services. It is seeking more efficient and more cost effective methods of serving those who need public health care.

The Health Department contracted with a consulting firm to examine its cost accounting system, management reporting system, public health priorities and organization structure. The study is expected to be completed in 1982.

PUBLIC HEALTH AREAS

In the reorganization, the public health areas had to cope with maintaining a degree of uniformity and yet meet the unique challenge of each area with the resources available. Several PHAs had to reevaluate programs and adjust priorities.

Each area of the state has unique problems which require slightly different emphases in the PHAs. Local health departments strive to use available resources advantageously in providing maximum services. The reports which PHAs II and IV submitted are representative of the varied activities that need to be addressed.

For Public Health Area II, 1981 was a year of transition. The five counties in the district, Bibb, Greene, Lamar, Pickens and Tuscaloosa, were joined by Hale and Fayette counties to form PHA II.

Reduced funding created a need to reevaluate priorities in order to assure that money for health promotion and disease prevention were used to meet the most pressing public health needs in the area. Financial constraints during the year prohibited replacing those staff members who resigned, and clinics were adjusted as staffing patterns necessitated.

State and local governments have been supportive in appropriations to PHA II, helping to reduce the deficit created by reduced federal funds. Fiscal year 1981 receipts were $1,374,208.64 with expenditures being $1,397,412.03. The deficit was covered by carry over funds.

New life and those who nurture and care for it continued to be a major focus of health department clinics. Through maternity clinics, including prenatal and postpartum care; family planning; well child clinics; and medicaid screening, basic needs were met. In addition immunization clinics were fully utilized and the dental program met the need of children 3 to 21 years of age in this important clinic.

For communicable disease control public health has major responsibilities in tuberculosis, immuization, epidemiology and sexually transmitted disease.

Some measure of the scope of personal health services is indicated by Table 1-1.

TABLE 1-1
PHA II CLINIC ENCOUNTERS
FISCAL YEAR 1981

County	STD	Tuberculosis	Immunizations	Family Planning	Maternity	Well Child	EPSDT	Home Health
Bibb	70	291	2,069	1,527	820	305	171	1,625
Greene	90	232	1,859	1,684	247	384	156	908
Lamar	30	2,119	2,710	995	102	282	107	1,863
Pickens	217	2,643	3,336	1,459	457	340	270	1,285
Tuscaloosa	3,563	5,608	9,999	9,185	5,696	1,392	1,502	5,134
Fayette	25	1,157	980	980	32	0	108	966
Hale	26	1,409	1,338	1,338	16	240	195	1,469
TOTAL	4,021	13,459	25,516	17,168	7,370	2,943	2,509	13,250

During 1981 maternal and child health services were enhanced by a nutritionist who provided 2,459 consultations in prenatal, well baby and family planning clinics. Further support to these programs came from a social worker who provided counseling, consultation, information and referral to 1,545 persons last year.

Home health care for those who were homebound and required skilled nursing care was provided through the health department. Personal care and physical therapy were program components. In 1981, 13,250 encounters were recorded. Ambulatory clinics provided services to patients who were referred by their physician and were able to come to the health centers for this service. Available statistics indicated that 1,453 visits were made in 1981.

Efforts of the dental program were directed at education, treatment and prevention of dental disease. Dental services include operative, oral surgery, endodontics, periodontics and minor orthodontic treatment. During the year, 21,282 dental procedures were provided 4,788 children. And these services were valued in excess of $225,000.

Additionally, 7,378 elementary school children in Bibb, Pickens and Tuscaloosa counties were provided a weekly sodium fluoride mouthrinse which reduces cavities up to 50 percent. Dental Health education was provided to 11,964 elementary school children in the classroom and to 2,277 additional clinic patients.

Nutrition education and foods high in necessary nutrients were the two major components of the Women, Infants and Children Supplemental Food Program (WIC). An average of 4,707 individuals were enrolled in the program with an average of 4,406 participating each month for a 94 percent participation rate. The average food package cost per month is $27. Certification of participants was most frequently due to low hemoglobin with 64 percent of women, 82 percent of infants and 83 percent of children participants falling in that category.

A decrease in overall gonorrhea morbidity for Public Health Area II has been evident in recent years. The 1,727 cases reported in 1981 were some 126 fewer than three years ago Gonorrhea surveillance included the private practice community as well as health department clinics and the program produced 28,730 gonorrhea cultures in 1981. The area has not fared so well with syphilis, and data indicate 42 early syphilis cases in 1981 compared with 28 in 1980.

A decrease was also reported in tuberculosis cases, with PHA II identifying 66 new cases in 1981. Ninety-nine cases were under treatment during the year. Of special significance is the initiation of a new protocol for tuberculosis management which is uniform throughout the state.

Immunization reports for the area are outstanding with 98.3 percent of students in PHA II completely immunized.

In addition to these specialized clinic areas, the region had an epidemiology program with 173 communicable diseases reported and followed epidemiologically as indicated by each disease process.

Environmental health activities included services in food and milk sanitation, septic tank inspection, subdivision inspection and approval, solid waste supervision, insect and rodent control, and other activities related to community sanitation. Table 1-2 presents a summary of activities for 1981.

TABLE 1-2
SELECTED ENVIRONMENTAL ACTIVITIES
FISCAL YEAR 1981

	Bibb County	Fayetta County	Greene County	Hale County	Lamar County	Pickens County	Tuscaloosa County	Total
Food Establishment Inspections	216	556	211	346	522	300	2,536	4,687
New Food Establishments	0	4	3	2	9	0	70	88
Water Samples Collected	9	45	24	6	32	40	28	184
New Subdivisions Processed	0	1	2	2	1	1	3	10
Septic Tank Visits	68	86	74	30	60	150	768	1,236
New Septic Tanks Installed	64	61	32	15	60	63	360	655
Solid Waste Management	3	7	14	9	220	15	144	412
Nuisance Complaint Investigation	32	22	42	17	134	35	920	1,202
Office Visits	243	573	215	77	907	200	882	3,097
Swimming Pool Inspections	3	0	4	2	2	2	10	23
Rabies Investigations	16	4	3	5	26	32	29	115

Special activities during the year included assignment of environmentalists in each of the seven counties of the area to conduct a general sanitation survey of schools to identify problems or hazards. Violations of sewage disposal regulations were identified and corrected. Overall, the school systems in PHA II were in above average condition and the survey served as a valuable instrument in initiating better conditions.

Since its inception two and one-half years ago, the Tuscaloosa Urban Rat Control Project has successfully reduced the active rat signs in the target area from 13.9 percent to the more acceptable level of 1.1 percent, which is considerably below the 2 percent goal initially projected. This is representative of improved living conditions for 27,000 Tuscaloosa residents. As more blocks are being moved into EIB (Environmental Improvement Block) status, additional blocks are being sought out for inclusion into the target area.

West Alabama District Health Department continued its primary enforcement responsibility for subdivision approval by approving seven subdivisions for the year. WADHD is the only district in the state to which the Alabama Department of Public Health has delegated this responsibility.

The Milk Sanitation Program operated with ratings of 77.3 percent compliance for retail soft serve ice milk mix, 83.3 percent compliance for retail processed milk, 93 percent compliance for raw milk from producer dairies and 93.8 percent compliance for processed milk from plants.

The budget for fiscal year 1982 has been set at $1,515,984. In an effort to obtain a balanced budget, some vacancies were not filled and some staff were transferred to the state budget.

Although CETA (Comprehensive Employment Training Act) was being phased out, the Health Department did have four workers in Central Records for part of the year.

For fiscal year 1981 the Health Department received continuation grants in family planning, MCH, WIC and urban rat control. Family planning and MCH were both reduced from the previous year. In addition a grant for the Pickens County Health Center was received; a certificate of need was completed; and construction has begun. It is estimated that the building will be completed in early 1982.

Statistics on vital events for fiscal year 1981 as taken from the Alabama Vital Statistics Quarterly Reports are reported in Table 1-3.

TABLE 1-3
VITAL EVENTS FOR PUBLIC HEALTH AREA II

County	Births	Deaths
Bibb	251	152
Fayette	223	194
Greene	243	114
Hale	303	166
Lamar	67	149
Pickens	308	209
Tuscaloosa	1,862	1,013

An Appalachian Regional Commission grant for $216,000 will enable construction of the second phase of the Tuscaloosa County Health Center to house environmental, administrative, and vital statistics division and to provide some teaching space.

In the area of the personal health services, plans call for moving to centralized medical records in each county (Tuscaloosa has already implemented such a system.) and to develop more unified clinic operations to provide services more effectively and efficiently.

The assistant state health officer for Public Health Area IV perceived four needs which should be addressed immediately—(1) Organizational change: to establish administrative units with an administrator for each and to select senior nurses and environmentalists to serve as supervisors. (2) Unified clinics: to keep county health departments open for all normal services, to utilize staff across program and county lines, and to consolidate clinics which have been poorly used. (3) Program needs assessment: to continue present programs if needed, to expand where need exists, and to establish programs at needed sites. (4) Program improvement in administration, clinical and environmental services: to set priorities, to define problems, to design solutions, and to effect areawide standardization.

All counties in PHA IV have adopted a standardized eligibility policy for clinical services. To be eligible for admission to maternity, well child, hypertension, cancer detection, WIC and dental clinics, clients must be below 150 percent of the federal poverty guidelines. Family planning and home health were already using poverty guidelines. Immunization, venereal disease and tuberculosis have been exempted from the poverty guidelines. Eligibility guidelines have eliminated the feeling among private physicians that public health is competing with them for patients. Consequently private physicians assist in clinic work more readily. Since higher income people are seeking private medical care, the use of some clinics has decreased; and funds are being saved without endangering the public health.

If the health officer had had more time to meet with local governing bodies and boards of health, he could have generated more local funding and enhanced local support. Increased supervision of the delivery of public health services would have improved quality and maintained economy and efficiency in operations.

PHA IV has been organized into five administrative units. DeKalb and Cherokee counties make up unit 1. Unit 2 is Etowah County with unit 3 being composed of Calhoun and Cleburne counties. Talladega, Clay and Coosa counties are unit 4. Unit 5 consists of Randolph, Tallapoosa and Chambers counties. The sharing of personnel, especially administrators and supervisors, has been mostly within administrative units.

However during part of the year, Cleburne County shared a nurse and an environmentalist with Calhoun County. Clay, Coosa, Chambers and Tallapoosa counties had part-time environmentalists.

Many public health services were available in all counties. Immunization was available in all counties, but the number of children served in 1981 decreased drastically because the concerted effort in 1980 was so effective. Family planning, WIC, home health care, blood pressure screening, tuberculosis control, epidemiology surveillance, and vital statistic reporting were provided in all counties. Environmental health programs in all counties were rabies control, food and water inspection, vector control, sewage disposal inspection, subdivision review, and jail inspection. All counties had conducted milk inspection until the State Health Department assumed the responsibility, starting in 1981.

Most of the counties provided well child screening, maternity medical and nursing care, venereal disease control, cancer detection, inspection of child care facilities, health education, and school health. Etowah County has an especially effective school health program.

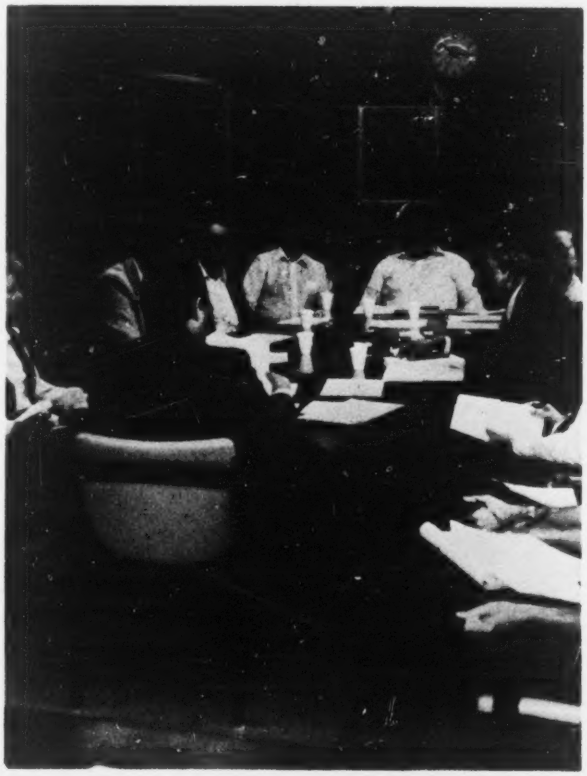
Four counties—Calhoun, Chambers, DeKalb and Randolph—conducted hypertension screening. Calhoun, DeKalb and Etowah counties provided dental care while these counties as well as Chambers and Cleburne included dental health education in their activities.

DeKalb County has one of the greatest concentrations of summer camps in the United States. In addition to routine inspection of camp facilities, health personnel met with camp owners and operators to discuss recurring problems and potential hazards.

Etowah County was unique in providing eye care to indigent children and adults. On a rotating basis four local opthalmologists participated in the weekly Eye Clinic. Local Lions Clubs and the Alabama Sight Conservation Program assisted patients with the purchase of glasses and other follow-up care. The Vocational Rehabilitation Services assisted with the purchase of the eye clinic equipment and participated in the follow-up of the visually impaired patients. Patients from Etowah and some of the surrounding counties examined in the clinic in 1981 totaled 465. Of these, 67 children and 120 adults received glasses.

Calhoun County has completed plans to renovate the old laboratory section of the health center. When this project is completed, new clinical facilities will provide enough space to meet the needs of the community. The Calhoun County Commission, the County Medical Society, Area IV Health Systems Agency and the Appalachian Regional Commission assisted with the approximately $260,000 needed for the renovation.

Local health departments have provided diverse and extensive services. There were few, if any, citizens who were not affected by county public health activities. As each county faced its unique challenges, it determined to improve the quality of life of its citizens despite the lack of funds and limited resources.



Chemical Test for Intoxication Program

As mandated by the 1969 Chemical Test for Intoxication Act, commonly referred to as the Implied Consent Law, the Health Department continued to participate in and to monitor the training of law enforcement officers who administer the examination to determine whether a driver is intoxicated. During 1981, 289 basic operators were trained. Persons are certified to conduct the analyses if they can administer test procedures correctly and obtain accurate results and if they have an acceptable knowledge of the scientific principles and the law underlying the utilization of breath, blood, and urine to measure blood alcohol levels.

The law further provides that the State Board of Health is responsible for approving the testing instruments, methods of analyses and laboratory procedures. Three instruments have been approved, namely, the Photo-electric Intoximeter, the Gas Chromatograph Intoximeter and the Breathalyzer. At the close of 1981, there were 218 instruments in use in the state. An instrument was accessible to each law enforcement agency in Alabama.

The chemical test is the only accurate way to determine the degree that the brain is affected by alcohol. Therefore numerous courts require test results as scientific evidence of a driver's mental impairment based on the blood alcohol content.

Finance Division

As the fiscal agent the Division of Finance was responsible for all 1981 budgetary functions for the State Health Department and a majority of the local health departments.

It worked with state buyers, vendors, and department staff to purchase supplies and equipment. It also validated payment documents. Office, clinical and other supplies are stocked so that they will be readily available. The division also maintained the inventory of equipment.

Payroll records for more than 2,000 state and county employees were processed by the Finance Division. It also handled vouchers for reimbursement for travel expenses.

Tables 1-4, 1-5 and 1-6 give more detail on receipt and disbursement of funds.

TABLE 1-4
SUMMARY OF RECEIPTS, DISBURSEMENTS, AND BALANCES BY SPECIAL SOURCE OF FUNDS FISCAL YEAR ENDING SEPTEMBER 30, 1981

Source	Balance 10-1-80	Receipts	Expended	Balance 9-30-81
STATE AND REVENUE FUNDS				
General Fund—Health	303,956.44	9,400,000.00	9,250,176.86	453,779.58
General Fund Transfers to Counties	—0—	6,107,000.00	6,107,000.00	—0—
ASETF Prenatal Transfer	89,636.92	723,239.25	519,519.95	293,356.22
ASETF Immunization & School Inspection Transfers to Counties	—0—	482,159.50	482,159.50	—0—
Total	393,593.36	16,712,398.75	16,358,856.31	747,135.80
2^c Cigarette Tax	384,112.78	2,067,836.67	2,125,804.88	326,144.57
1^c Cigarette Tax	283,428.04	1,413,781.92	1,398,568.58	298,641.38
Water Improvement Fines	391,909.42	10,385.08	16,585.44	385,709.06
Air Pollution Fines	145,265.73	60,000.00	90,525.76	114,739.97
Hospital Licenses	24,076.83	177,178.00	180,324.43	20,930.40
Vital Statistics Fees	224,353.73	1,056,558.77	789,295.60	491,616.90
Emergency Medical Services	68,790.67	25,854.00	25,865.94	68,778.73
Hazardous Waste Management	—0—	13,066.81	—0—	13,066.81
Hazardous Waste Perpetual Care	—0—	20,189.07	—0—	20,189.07
Total	1,521,937.20	4,844,850.32	4,626,970.63	1,739,816.89
Regulatory Boards				
Hearing Aid Dealers	26,832.82	7,060.00	20,048.69	13,844.13
Water Well Standards	20,391.79	37,000.00	52,369.71	5,022.08
Water Plant Operators	12,193.96	5,320.75	4,230.17	13,284.54
Registration of Sanitarians	18,109.15	994.00	291.02	18,812.13
Total	77,527.72	50,374.75	76,939.59	50,962.88
TOTAL STATE & REVENUE FUNDS	1,993,058.28	21,607,623.82	21,062,766.53	2,537,915.57
FEDERAL FUNDS				
Revenue Sharing				
Cancer	7,584.96	2,000.00	9,584.96	—0—
Emergency Medical Services	2,094.70	—0—	2,094.70	—0—
Anti-Recession	8,499.00	—0—	8,499.00	—0—
Total	18,178.66	2,000.00	20,178.66	—0—
Family Planning				
Title X	60,470.79	3,845,000.00	3,756,663.89	148,806.90
Title XIX	104,509.46	485,826.60	691,570.98	(101,234.92)
Training Grant	—0—	11,532.23	11,532.23	—0—
Patient Fees	248,760.70	328,793.38	348,414.25	229,139.83
Total	413,740.95	4,671,152.21	4,808,181.35	276,711.81
Maternal & Child Health				
Title V, Sec. A	35,022.67	2,506,830.00	2,450,539.45	91,313.22
Title V, Sec. B	17,651.03	2,598,545.00	2,605,973.07	10,222.96
Title V, Sec. MR	1,940.48	125,000.00	126,685.89	254.59
Improved Pregnancy Program	5,097.42	392,500.00	392,063.22	5,534.20
MCH—HIM	4,251.52	587,000.00	581,990.41	9,261.11
MCH—SECT. 330	1,138.65	139,000.00	139,248.15	890.50
ARC—SEICH	—0—	161,500.00	160,715.57	784.43
MCH—SIDS	—0—	38,800.00	38,542.02	257.98
Third Party Participation	259,236.18	129,555.28	111,200.76	277,590.70
Total	324,337.95	6,678,730.28	6,606,958.54	396,109.69
Environmental Protection Agency				
Water Improvement—74 IMPD	1,716.00	—0—	—0—	1,716.00
Water Improvement—Earned Fund	84,169.94	25.00	37,050.00	47,144.94
Water Improvement—106	49,073.05	1,623,224.77	1,624,795.70	47,502.12
Water Improvement—208	9,551.26	—0—	—0—	9,551.26
Water Improvement—Surface Impd.	4,189.25	16,200.00	20,389.25	—0—
Water Improvement—Sect. 208 1980	4,629.71	110,000.00	128,161.03	(13,531.32)
Water Improvement—UIC	3,769.87	75,000.00	63,415.29	15,354.58
Water Improvement 205—G	—0—	10,500.00	515.30	9,984.70
Total Water Improvement	157,099.08	1,834,949.77	1,874,326.57	117,722.28

TABLE 1-4 (continued)
SUMMARY OF RECEIPTS, DISBURSEMENTS, AND BALANCES BY SPECIAL SOURCE OF FUNDS
FISCAL YEAR ENDING SEPTEMBER 30, 1981

Source	Balance 10-1-80	Receipts	Expended	Balance 9-30-81
Environmental Protection Agency (con't.)				
Air Pollution	117,486.84	918,466.00	997,861.66	38,091.18
Safe Drinking Water	175,047.71	354,025.00	372,560.06	156,512.65
Solid & Hazardous Waste	(13,076.79)	725,841.00	598,519.76	114,244.45
Total	436,556.84	3,833,281.77	3,843,268.05	426,570.56
U.S. Public Health Service				
Comprehensive Health—314D	2,396.82	166,339.00	165,623.09	3,112.73
Health Manpower	404.38	(404.38)	—0—	—0—
Health Facilities	170.86	(170.86)	—0—	—0—
Hypertension	1,605.36	501,000.00	491,084.94	11,520.42
Planning & Development	184.98	(184.98)	—0—	—0—
Emergency Medical Services	2,376.03	845,000.00	878,106.10	(30,730.07)
RHI Planning	500.00	4,000.00	4,500.00	—0—
Home Health	8,086.04	—0—	2,194.30	5,891.74
Rural Health Affairs	5,876.59	43,000.00	37,807.75	11,068.84
Total	21,601.06	1,558,578.78	1,579,316.18	863.66
Center for Disease Control				
Risk Reduction	1,754.60	149,500.00	151,298.80	(44.20)
Dental	7,391.64	242,500.00	207,032.54	42,859.10
Lead Poisoning Control	1,281.56	(1,281.56)	—0—	—0—
Venereal Disease	1,498.82	925,246.00	913,309.60	13,435.22
Immunization	2,498.13	342,000.00	305,231.30	39,266.83
Influenza	5,673.60	35,700.00	41,287.92	85.68
Total	20,098.35	1,693,664.44	1,618,160.16	95,602.63
Applachian Region Commission				
Northwest Ala. Health District	7,377.13	(7,377.13)	—0—	—0—
Emergency Medical Services—1203	5,119.47	320,100.00	325,172.78	46.69
Home Health	1,302.42	(1,302.42)	—0—	—0—
Total	13,799.02	311,420.45	325,172.78	46.69
Other Federal Funds				
S.S.A. Certification	1,421.20	615,395.28	714,855.27	(98,038.79)
A.E.C Radiological Health	24,296.61	44,562.61	34,744.94	34,114.28
Dept. of Agriculture—WIC Food	2,165,643.41	19,000,676.12	20,900,496.38	265,823.15
NIH Cancer	955.06	3,900.00	—0—	4,855.06
Home Health Escrow	141,064.09	808,125.05	517,740.00	431,449.14
Home Health Administration	104,411.71	147,488.00	146,417.01	105,482.70
NCH Vital Statistics	2,644.60	76,000.00	75,569.67	3,074.93
Total	2,440,436.68	20,696,147.06	22,389,823.27	746,760.47
TOTAL FEDERAL FUNDS	3,688,749.51	39,444,974.99	41,191,058.99	1,942,665.51
LOCAL & MISCELLANEOUS FUNDS				
Dental Contracts	18,953.31	26,295.10	38,731.43	6,498.98
Lab—Rubella	5,474.25	1,772.00	3,708.60	3,537.65
Environmental Lab.	(13,245.38)	192,225.00	186,827.84	(7,848.22)
Health Data Grant	9,465.23	8,648.71	18,113.94	—0—
Indirect Cost Earned	1,228,318.11	2,132,567.71	2,071,667.80	1,289,218.02
Laboratory—Sickle Cell	93,891.83	44,958.05	83,535.74	55,314.14
Vital Statistics	108,464.00	87,474.24	101,648.78	94,289.46
Contract Safe Water Lab.	25,310.00	30,000.00	47,353.23	7,956.77
Lab. Training	1,393.05	1,400.00	414.00	2,379.05
OHTS—Child Restraint	(12,815.65)	75,380.53	66,001.53	(3,436.65)
Miscellaneous Reimbursement	2,456.82	590,699.20	683,389.63	(90,233.61)
Health Nuclear Monitoring	—0—	82,735.82	57,274.13	25,461.69
Local Appropriations	3,086,161.78	23,721,185.77	22,872,181.75	3,935,165.80
TOTAL	4,553,809.35	26,995,342.13	26,230,848.40	5,318,303.08
GRAND TOTAL	10,235,617.14	88,047,940.94*	88,484,673.92*	9,798,884.16

*Includes 13,538,691.00 in funds collected and expended locally.

TABLE 1-5
SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
FISCAL YEAR ENDING SEPTEMBER 30, 1981

Program	All Funds	State & Revenue Funds	Federal Funds	Local & Other Funds
ADMINISTRATION				
Executive	235,065.60	210,709.16	—0—	24,356.44
General Services	2,190,046.65	698,262.03	—0—	1,491,784.62
Finance	547,986.14	534,553.15	—0—	13,432.99
Internal Audit	60,635.19	60,629.38	—0—	5.81
Legal Services	80,726.17	80,726.17	—0—	—0—
Personnel	136,978.84	134,504.70	—0—	2,474.14
Building Renovation—Public Health Bldg.	29,682.04	—0—	—0—	29,682.04
Total	3,281,120.63	1,719,384.59	—0—	1,561,736.04
SPECIAL SERVICES				
Administrations	63,531.86	43.75	—0—	63,488.11
Vital Statistics	903,196.34	789,466.00	75,569.67	38,160.67
Primary Prevention	608,409.56	370,085.69	151,602.49	86,721.38
Health Data	780,209.45	296,760.19	—0—	483,449.26
Total	2,355,347.21	1,456,355.63	227,172.16	671,819.42
HEALTH SUPPORT SERVICES				
Public Health Area Support	135,825.30	135,825.30	—0—	—0—
Rural Health	37,807.75	—0—	37,807.75	—0—
Public Health Nursing	366,012.69	219,002.76	147,009.93	—0—
Public Health Area I Admin.	59,843.18	—0—	50,350.96	9,492.22
Public Health Area II Admin.	68,076.36	—0—	58,069.99	10,006.37
Public Health Area III Admin.	60,284.63	—0—	14,235.69	46,048.94
Public Health Area IV Admin.	35,907.66	—0—	—0—	35,907.66
Public Health Area V Admin.	60,672.51	27,243.76	33,428.75	—0—
Public Health Area VI Admin.	248.28	56.08	—0—	192.20
Clinical Laboratories	3,437,154.71	3,147,554.66	153,193.48	136,406.57
Geneva Home Health	1,601.38	—0—	1,601.38	—0—
Total	4,263,434.45	3,529,682.56	495,697.93	238,053.96
PLANNING, DEVELOPMENT & REGULATION				
RHI Planning	9,500.00	—0—	9,500.00	—0—
Emergency Medical Services				
State Operation	306,964.99	115,678.92	116,512.72	74,773.35
District Implementation	1,088,704.68	—0—	1,088,704.68	—0—
Total EMS	1,405,169.67	115,678.92	1,214,717.40	74,773.35
Licensure & Certification	1,369,703.69	181,714.04	714,855.27	473,134.38
Total	2,774,873.36	297,392.96	1,929,572.67	547,907.73
ENVIRONMENTAL HEALTH				
Administration	110,289.98	109,883.82	—0—	406.16
Environmental Laboratory	368,135.44	179,343.25	—0—	188,792.19
General Sanitation	195,878.20	195,444.93	433.27	—0—
Inspection	509,927.24	505,721.51	1,357.43	2,848.30
Public Water Supplies	610,355.73	221,666.81	372,560.06	16,128.86
Radiological Health	332,084.42	240,065.35	34,744.94	57,274.13
Solid and Hazardous Waste	775,550.15	155,605.24	598,519.76	21,425.15
Water Improvement Commission	2,386,467.92	509,710.11	1,876,757.81	—0—
Air Pollution Control Commission	1,591,871.31	594,009.65	997,861.66	—0—
Total	6,880,560.39	2,711,450.67	3,882,234.93	286,874.79
PREVENTIVE HEALTH SERVICES				
Administration	147,701.77	147,595.27	—0—	106.50
Cancer	415,803.87	415,569.13	234.74	—0—
Hospitalization of Cancer Patients	92,578.13	83,227.91	9,350.22	—0—
Epidemiology	105,549.97	105,549.97	—0—	—0—
Hypertension	594,689.23	103,604.29	491,084.94	—0—
Immunization	470,243.90	128,800.02	341,443.88	—0—
Tuberculosis Control	1,822,710.95	1,822,710.95	—0—	—0—
Hospitalization of T.B. Patients	716,103.80	716,103.80	—0—	—0—
Venereal Disease Control	1,216,134.93	302,825.33	913,309.60	—0—
Total	5,581,516.55	3,825,986.67	1,755,423.38	106.50

TABLE 1-5 (continued)
SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
FISCAL YEAR ENDING SEPTEMBER 30, 1981

Program	All Funds	State & Revenue Funds	Federal Funds	Local & Other Funds
FAMILY HEALTH SUPPORT				
Family Planning	4,826,536.82	—0—	4,826,536.82	—0—
Women, Infants, & Children Food	20,900,496.38	—0—	20,900,496.38	—0—
Maternal & Child Health				
Administration	791,712.97	—0—	791,712.97	—0—
Perinatal Program	519,519.95	519,519.95	—0—	—0—
MCH Special Project Contracts	2,528,831.13	91,800.48	2,437,030.65	—0—
MCH Area Support	1,359,243.77	—0—	1,359,243.77	—0—
Mental Retardation	220,967.46	—0—	220,967.46	—0—
Maternal & Infant Care	279,588.89	—0—	279,588.89	—0—
Improved Child Health	742,751.02	—0—	742,751.02	—0—
Section 330	135,407.88	—0—	135,407.88	—0—
SIDS	38,444.42	—0—	38,444.42	
Improved Preg. Outcome	384,123.59	—0—	384,123.59	—0—
Total MCH	7,000,591.08	611,320.43	6,389,270.65	
Dental Health	344,299.69	245,093.93	47,037.55	52,168.21
Dental Flouridation	219,876.52	—0—	219,876.52	—0—
Total	33,291,800.49	856,414.36	32,383,217.92	52,168.21
REGULATORY BOARDS				
Cert. of Water Plant Operators	4,230.17	4,230.17	—0—	—0—
Hearing Aid Board	20,048.69	20,048.69	—0—	—0—
Registration of Sanitarians	291.02	291.02	—0—	—0—
Water Well Standards Board	52,369.71	52,369.71	—0—	—0—
Total	76,939.59	76,939.59	—0—	—0—
HOME HEALTH ESCROW TRANSFER	517,740.00	—0—	517,740.00	—0—
LOCAL HEALTH UNITS	29,461,341.25	6,589,159.50	—0—	22,872,181.75*
GRAND TOTAL	88,484,673.92	21,062,766.53	41,191,058.99	26,230,848.40

*Includes $13,538,691.00 in funds collected and expended locally.

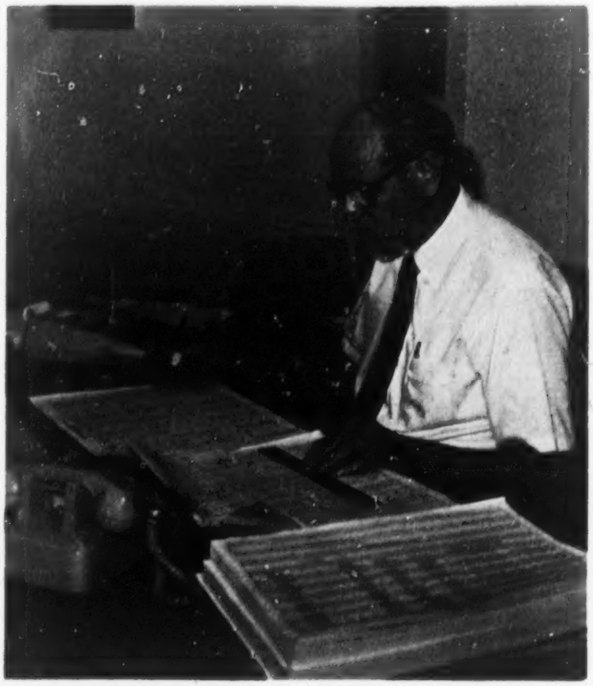


TABLE 1-6
SUMMARY OF DISBURSEMENTS BY OBJECT
FISCAL YEAR ENDING SEPTEMBER 30, 1981

Object	Expended
Salaries	19,014,699.22
Fringe	2,655,530.97
Travel—In-State	1,200,306.44
Travel—Out-of-State	83,463.84
Repairs and Maintenance	157,697.29
Rentals and Leases	945,329.86
Utilities and Communication	1,439,200.29
Professional Services	2,679,476.21
Supplies and Materials	1,310,801.77
Drugs and Medical Supplies	1,347,583.07
Food—WIC	16,813,617.34
Indirect Cost	1,985,872.73
Training	21,380.65
Transportation Equipment Operations	175,634.60
Grants and Contracts	14,430,465.53
Capital Outlay	30,881.64
Transportation Equipment Purchases	108,552.45
Other Equipment Purchases	640,289.86
Non-Expenditure Disbursements	571,708.41
County Health Departments	22,872,181.75
Total	88,484,673.92

Internal Audit Division

The Internal Audit Division has initiated an audit program to aid the county health departments in improving their accounting procedures. The response from the counties to a questionnaire to assess their needs was excellent. The division will continue to work with the Examiners of Public Accounts and the county health departments to achieve its long-range goal of developing a standardized accounting and periodic reporting system. The division is working on instructions for the counties to use in implementing the system.

The division represented the department on auditing matters involving the State Examiners of Public Accounts and auditors from the federal government and private firms. Audit findings were discussed with directors of certain State Health Department administrations, bureaus and divisions.

With other appropriate units of the Health Department, the Internal Audit Division reviewed and approved all contracts and agreements which place a legal obligation on the department.

The audit impact of legislative actions were evaluated, and recommendations were made.

The division also reviewed nine local agencies that participate in the Special Supplemental Food Program for Women, Infants and Children (WIC).

Legal Division

Two of the three attorneys assigned to the Department of Public Health have been designated assistant attorneys general. Their duties are similar to other assistants except that they concentrate on public health matters. They receive, research and write opinions; represent the Attorney General in providing legal assistance and counsel to state boards; and consult and coordinate with the Attorney General on public health matters. The new attorney is detailed to the Division of Solid and Hazardous Waste and functions as its counsel.

During the year the staff attorneys represented the Board of Health, the Health Department and its personnel in 38 actions before state and federal courts and administrative bodies. Sewage disposal, solid and hazardous waste, licensure of medical facilities, defamation, program management, negligence, civil rights, and personnel are representative of the diversity of these cases.

In the role of counsel to all units of the State Health Department and to a majority of the county health departments, staff attorneys reviewed contracts, leases, correspondence, and other documents for legal implication and sufficiencies. Regulations promulgated during the year required extensive review and recommendations. Attorneys interpreted statutes and regulations and advised about the appropriate legal and administrative actions to be pursued in their enforcement.

The Legal Division was assigned the primary responsibility for meeting the requirements of the Alabama Administrative Procedure Act (AAPA). The senior attorney was appointed secretary (as that term is used in AAPA) for the Health Department and in that capacity has filed all existing regulations with the Legislative Reference Service. The division also maintains the official register of departmental regulations available to the public.

The State Health Officer assigns special duties as he deems necessary.

Division of Personnel and Training Services

The activities of the Personnel Division in 1981 were primarily focused on giving administrative support to the classification and pay plan study which the State Personnel Department began on August 4, 1980, under the supervision of a professional consultant firm, Gary Craver and Associates. When the study was planned, it had been anticipated that the report and recommendations would be made to the State Personnel Board and the Governor by March 1981. Many problems which delayed implementation occurred during the early stages of the project. These problems, although not insurmountable, resulted in some employees becoming alarmed about their future status. For the most part Health Department employees were receptive to the plan. Therefore within this department, work toward achieving the objectives of reclassification has progressed. Reclassification was undertaken to:

1. Correct pay inequities between job classes and steps.
2. Establish realistic pay rates which are competitive when compared to the private sector in Alabama where appropriate and to other public employers in the Southeast where appropriate.
3. Reduce the number of class specifications and the complexity of the classification structure so that career paths are more easily identified and pursued, thereby encouraging qualified, motivated employees to seek careers within the state service.
4. Describe the work to be performed as it now exists.

During the delay in implementation, many jobs changed, some as a result of the decentralization of Health Department administration. Consequently it has been difficult to obtain the fourth objective. However it is anticipated that the plan will be implemented. Major changes will make the plan more nearly equitable for all levels of employees and will eliminate holdover classes (jobs not converted to the plan because they were grossly out of line).

Several informational meetings as well as two public hearings to comply with legal requirements were held by the State Personnel Department staff to explain the study.

In the area of recruitment, the combined efforts of the Health Department and State Personnel have produced 357 nurses who were placed on the registers for possible employment throughout the state. Other continuous recruitment figures were: 116 environmentalists, 65 microbiologists, 31 public health engineers, 10 public health physicians, 32 nutritionists, 357 human services aides, 70 home economists and 34 dental health employees.

In addition to the continuous recruitment activity, 86 pollution control specialists, 123 environmental health specialists, 25 solid waste officers, 53 laboratory technicians, five emergency medical service representatives and one radiation physicist were placed on the register.

During 1981 two basic development workshops were held for clerical personnel. Thirty employees from the state offices attended the Montgomery workshop in July, and 31 county employees attended a workshop in August at Oneonta, Alabama. These workshops were designed to help clerical staff sharpen their skills, update their communications, develop good human relations, and expand their professional attitude and image.

It has long been recognized that top level secretaries and administrative assistants occupy key positions in this department. To assist them in increasing their skills and abilities in management, a new workshop was offered in August; and 31 employees from the state offices and county health departments attended. This workshop was designed to assist these employees in understanding administrative tasks such a delegating responsibilities, solving problems, making performance appraisals, handling confrontations, making decisions and making effective use of time.

At the end of the year, 2,023 employees (820 state and 1,203 county) were on the payrolls. Jefferson and Mobile counties function under different merit systems; therefore their employees are not included in these totals.

Total combined accessions of 356 consisted of 159 original probationary, 60 provisional, 38 temporary, 32 reemployment, 11 transfer, 28 internal transfer and 28 skilled appointments. There were 10 non-status to probationary appointments, 95 promotions and 6 demotions for this period.

Separations numbered 466, of which there were 235 resignations, 14 transfers, one death, 109 expirations of appointment, 35 layoffs, eight dismissals and 24 internal transfers. Forty employees retired during this year.

BUREAU OF AREA HEALTH SERVICES

BUREAU OF AREA HEALTH SERVICES

The State Health Officer designated the Bureau of Area Health Services as the unit which provides central administration for area and local management of public health services. It is responsible for departmental planning and administrative services not assignable to specific programs. It also coordinates operations associated with the state's health planning and development programs. It administers the state emergency medical services program and conducts special projects.

With the change in organization of public health administration, this bureau provided the principal management for the decentralization process. It also provided the primary staff support for implementing the Preventive Health and Health Services block grant. With the change from categorical program grants to block grants, federal regulations and funding were reduced. The Health Department's 1981 expenditures for the categorical programs were $1.9 million. The initial grant award for the preventive block was $1.5 million or a 21 percent reduction.

In addition the bureau served as the support staff for the consulting firm which was contracted to examine the department's cost acounting system, management reporting system, public health priorities and organizational structure.

Other activities included providing information to the Governor's office, and preparing a manual which describes public health services. Reviewing departmental program grant applications, reducing paperwork in the county health departments, and serving as liaison with the State Health Planning and Development Agency were other duties of the Bureau of Area Health Services.

Emergency Medical Services Division

To coordinate courses, the Emergency Medical Services Division provided review services and technical assistance to 28 EMT-Basic (Emergency Medical Technician), 19 EMT-Intermediate and 8 EMT-Paramedic training programs. With staff assistance from the EMS Division, the State Technical Committee on Education revised and updated the EMT-Basic licensure examination.

The EMS Division continued coordination and review of EMT programs with the Department of Education and the Alabama Commission on Higher Education. A comprehensive programmatic review of each approved EMT-Paramedic training program was conducted by the State EMS Advisory Board. The EMS regional agencies provided local reviews and recommendations to the EMS Division on all matters related to training and continuing education.

In the EMT testing endeavor 2,057 EMT-Basics, 486 EMT-Intermediates and 224 EMT-Basics (Refresher) for a total of 2,767 students were tested during 1981. Additionally 233 EMT-Paramedics were tested locally and certified to the EMS Division during this same period.

The previous year marked the first complete recertification review period. Personal EMT licenses were cancelled for individuals who failed to achieve minimum continued education requirements. The continuing education program again received major funding from the Office of Highway and Traffic Safety.

A summary of continuing education activities reveal the following information.

Courses reviewed, staffed, and approved	130
Courses not approved	5
Individual license cancellations	237
EMT-Intermediate	143
EMT-Paramedic	106

There were 2,202 individuals who were recertified.

During 1981 the State Committee of Public Health endorsed operational, equipment and personnel standards for aircraft being utilized in Alabama as air ambulances. Data collection procedures and operational guidelines were developed for inclusion in the Model Traffic Records System (MTRS). Full implementation of the records system is anticipated in 1982.

During 1981, 327 emergency ambulance vehicles were inspected. Licenses were issued to 137 ambulance services and 2,017 ambulance personnel. The cumulative total of licensed ambulance personnel was 7,369.

The State Technical Committee on Drugs, with assistance from the EMS Division, developed new operational and application review procedures and a revised physician medication order form during the year. A 20 percent increase in program authorization occurred in 1980.

Authorizations were issued to 143 advanced life support providers and 64 hospital pharmacies.

Medical control and accountability plans for advanced life support field activities were more firmly established and operating in North Alabama, West Alabama and Birmingham Regional EMS Systems. Full implementation of medical control and accountability plans are currently under development in the remaining three regions. Statewide medical control and accountability planning with statewide Radio Telecommunications Switching Systems (RTSS) requires the highest priority.

Virtually all counties now have installed and are operating the VHF voice-only EMS radios for ambulance-hospital and hospital-hospital communications.

Thirty-two of the counties have already installed RTSS for UHF voice/telemetry, the latest state of the art transmissions. Orders have been placed for similar RTSS units for 24 additional counties, with installations of these to be completed by mid-1982. Funds are already available for these systems.

Local Public Health Services

A public health department is located in each of the 67 counties. These local health departments are the point of delivery of a myraid of services designed to protect and enhance the health of the citizens of Alabama. Their staffs provide environmental protection, personal health services, vital statistics reporting services and other health service activities. Table 2-1 specifies the services that each county health department provides. Programs administered through local health departments receive extensive support from the state-level bureaus and divisions. This support is in the form of specially trained personnel, technical assistance, statewide coordination and evaluation.

However some public health services are administered directly from the central office in Montgomery. The Bureau of Vital Statistics is the central depository for records of vital events, and it issues certified copies of these records and compiles data about these events. Inspecting and licensing health care facilities are statewide functions of the Bureau of Licensure and Certification. Laboratory services are administered by the central laboratory in Montgomery. Much public health information is disseminated from state offices. Monitoring air and radiological pollution and regulating public water supplies are state-level activities.

In addition to the programs offered during 1981 in almost all local health departments across the state, several counties had special programs to deal with local problems. Several counties conducted special programs for migrant workers. Shelby County offered carbon monoxide testing, and Etowah County Health Department had an eye clinic in which local ophthalmologists served. Walker County Health Department provided black lung services to all counties in Public Health Area III. DeKalb County Health Department inspected summer camps for one of the largest concentrations of summer camps in the country. Houston County Health Department administered a special program for typhus control while West Alabama District Health Department and Mobile County Health Department directed special programs for rodent control. Mobile County also offered plumbing inspection, pharmacy services and primary care. Primary care services were also provided in the Jefferson County Health Department, as well as a colposcopy clinic in conjunction with the University of Alabama at Birmingham, which provided follow-up on abnormal Pap smears. Jefferson County also carried on an infectious hepatitis program and a nutritional surveillance in conjunction with the Centers for Disease Control.

The service capabilities of county health departments were lowered in 1981 due to funding reductions and the consequential staff reductions. However forecasts of the funding cut backs and the removing of federal regulations aided administrators in adjusting staff so that disruption of services was limited. Staff previously assigned only to categorical programs were generalized to increase utility and productivity. Coordinated or unified clinics—those providing several program services simultaneously—continued to be implemented throughout the state. Activities were initiated to reduce the paperwork required of county health departments so that more time will be available for delivery of services.

Refugee Health Services

The Alabama Health Program for Refugees was initiated in 1981. This program, administered through the Bureau of Area Health Services, was one of the few federally funded health programs not scheduled for inclusion in the new block grants. Funds were made available through a grant-in-aid from Public Health Service Region IV of the Department of Health and Human Services.

This program was designed to screen newly arriving refugees for diseases or health problems which may be of public health significance or which may threaten their health or well-being. Conditions found as a result of this process were referred to existing public health programs or other providers.

During the 1981 fiscal year, 247 refugees were screened in Jefferson and Mobile counties. The conditions which have produced the greatest amount of referral activity are tuberculosis, immunization and internal parasites. Of the 110 refugees screened for hepatitis B, 12 produced positive test results. Only one case of malaria was handled. Referrals were made for vision, hearing, dental, nutrition, venereal disease, hepatitis B and rubella.

TABLE 2-1
COUNTY HEALTH DEPARTMENT ACTIVITIES

1981 ACTIVITIES	VITAL STATISTICS	IMMUNIZATION	WELL CHILD MEDICAL CLINICS	WELL CHILD SCREENING CLINICS	WIC	HEALTH EDUCATION	SCHOOL HEALTH	DENTAL CARE	DENTAL HEALTH EDUCATION	FLUORIDE MOUTH RINSE	MATERNITY MEDICAL CARE	MATERNITY NURSING CARE	FAMILY PLANNING	TUBERCULOSIS	VENEREAL DISEASE	HYPERTENSION	BLOOD PRESSURE SCREENING	CANCER DETECTION	HOME HEALTH CARE	FOOD AND WATER INSPECTION	MILK INSPECTION	SOLID WASTE	VECTOR CONTROL	SEWAGE DISPOSAL INSPECTION	SUBDIVISION REVIEW	SWIMMING POOL INSPECTION	JAIL INSPECTION	RABIES CONTROL	CHILD CARE FACILITY INSPECTION	EPIDEMIOLOGY SURVEILLANCE	BLACK LUNG CLINICS	OTHER PROGRAMS
PUBLIC HEALTH AREA I																																
NORTHWEST ALABAMA REGIONAL HEALTH DEPARTMENT																																
COLBERT	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
FRANKLIN	X	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X		
LAUDERDALE	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TRI-COUNTY DISTRICT HEALTH SERVICES																																
CULLMAN	X	X	X	X	X	X			X		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		
LAWRENCE	X	X	X	X	X	X			X				X	X	X					X	X	X	X	X	X	X	X	X	X	X		
LIMESTONE	X	X	X	X	X	X	X		X		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		
MORGAN	X	X	X	X	X	X	X		X		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		
JACKSON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X		
MADISON	X	X		X	X	X	X	X			X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X		
MARION	X	X			X	X	X			X			X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MARSHALL	X	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X		
WINSTON	X	X	X	X	X	X	X				X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PUBLIC HEALTH AREA II																																
WEST ALABAMA DISTRICT HEALTH DEPARTMENT																																
BIBB	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
GREENE	X	X	X	X	X	X					X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X		
LAMAR	X	X	X	X	X	X		X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PICKENS	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X		
TUSCALOOSA	X	X	X	X	X	X		X	X		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		
FAYETTE	X	X			X	X	X		X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
HALE	X	X		X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PUBLIC HEALTH AREA III																																
BLOUNT	X	X		X	X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		X
CHILTON	X	X	X	X	X	X	X				X	X	X	X			X	X	X	X	X	X	X	X	X		X	X	X	X		
JEFFERSON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		
ST. CLAIR	X	X	X	X	X	X	X		X				X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
SHELBY	X	X		X	X	X	X				X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
WALKER	X	X		X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PUBLIC HEALTH AREA IV																																
CALHOUN	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X		
CHAMBERS	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		
CHEROKEE	X	X		X	X	X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CLAY	X	X		X	X	X	X				X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CLEBURNE	X	X		X	X	X	X		X	X			X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
COOSA	X	X			X						X	X	X	X			X	X	X	X	X	X	X	X	X		X	X		X		
DEKALB	X	X		X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
ETOWAH	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
RANDOLPH	X	X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TALLADEGA	X	X	X	X	X	X	X				X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TALLAPOOSA	X	X			X	X	X				X	X	X	X	X		X	X	X	X	X		X	X	X		X	X	X	X		
PUBLIC HEALTH AREA V																																
AUTAUGA	X	X	X	X	X	X	X				X	X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X		
BARBOUR	X	X		X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
BULLOCK	X	X	X		X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X		X	X	X	X		
BUTLER	X	X	X	X	X	X	X			X		X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X		
COFFEE	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
COVINGTON	X	X		X	X	X	X						X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CRENSHAW	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
DALE	X	X			X			X	X				X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ELMORE	X	X	X	X	X	X	X				X	X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X		
GENEVA	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
HENRY	X	X			X	X					X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
HOUSTON	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LEE	X	X	X	X	X	X		X			X	X	X	X	X			X	X	X	X	X	X	X	X		X	X	X	X		
LOWNDES	X	X		X		X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MACON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MONTGOMERY	X	X	X	X	X	X	X				X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PIKE	X	X	X	X	X	X	X			X			X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X		
RUSSELL	X	X	X		X	X	X		X	X			X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PUBLIC HEALTH AREA VI																																
GULF COAST DISTRICT HEALTH DEPARTMENT																																
BALDWIN	X	X		X	X	X					X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
CONECHH	X	X		X	X	X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ESCAMBIA	X	X		X	X	X					X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
CHOCTAW	X	X	X	X	X	X	X				X	X	X	X			X	X	X	X	X	X	X	X	X		X	X	X	X		
CLARKE	X	X		X	X	X	X			X	X	X	X	X	X			X	X	X	X	X	X	X	X		X	X	X	X		
DALLAS	X	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MARENGO	X	X		X	X	X	X		X			X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MOBILE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X		X	X	X	X	X		X	X		X
MONROE	X	X		X	X	X			X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PERRY	X	X		X	X	X	X				X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X		
SUMTER	X	X		X	X		X					X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		
WASHINGTON	X	X	X	X	X	X	X				X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
WILCOX	X	X		X	X	X						X	X	X	X			X	X	X	X	X	X		X		X	X		X		

Rural Health Affairs

The Office of Rural Health Affairs was created by an executive order of the Governor in August 1979 to serve as the state's focal point for the coordination, initiation and development of rural health programs funded with public money. The office was placed within the State Health Planning and Development Agency, which had been created by executive order in June of that year. On March 3, 1981, an amendment to the original executive order transferred the Office of Rural Health Affairs to the State Committee of Public Health where it remained for the balance of 1981.

Having a primary goal of increasing the availability of quality health services in rural communities across the state, the Office of Rural Health Affairs established several objectives for the 1981 project period. These objectives emphasized the elimination of 10 percent of the medically underserved areas and the retention of many National Health Service Corps personnel assigned to Alabama. Technical assistance to rural health clinics remained a large function of the office; and new ideas on the coordination of services among public health departments, rural health clinics, and other agencies were discussed and implemented. The office initiated a rural health status information file soon after its creation in 1979, and plans were made to continue and expand this function.

The Office of Rural Health Affairs selected specific activities to achieve its goals and objectives.

Noting a critical shortage of physicians in many rural areas of Alabama, the office initiated a physician recruitment effort. Discussions among many interested groups, such as the Medical School at the University of Alabama in Birmingham, the American Academy of Family Physicians and the Alabama Hospital Association, revealed many approaches to this issue. A community profile directory as well as a technical assistance program for communities seeking physicians was initiated. The director of the Office of Rural Health Affairs visited residency programs in Tuscaloosa, Anniston, and Montgomery and discussed strategy for informing physicians on practice opportunities in Alabama's rural areas. On October 21, 1981, a physician recruitment conference was held in Birmingham. The conference was sponsored by the Office of Rural Health Affairs, the UAB Medical School and the Alabama Hospital Association.

Many distinguished persons addressed representatives of Alabama Communities on specific problems and techniques of physician recruiting. The response of participants in the conference was very favorable, and plans to continue this effort in 1982 are under way.

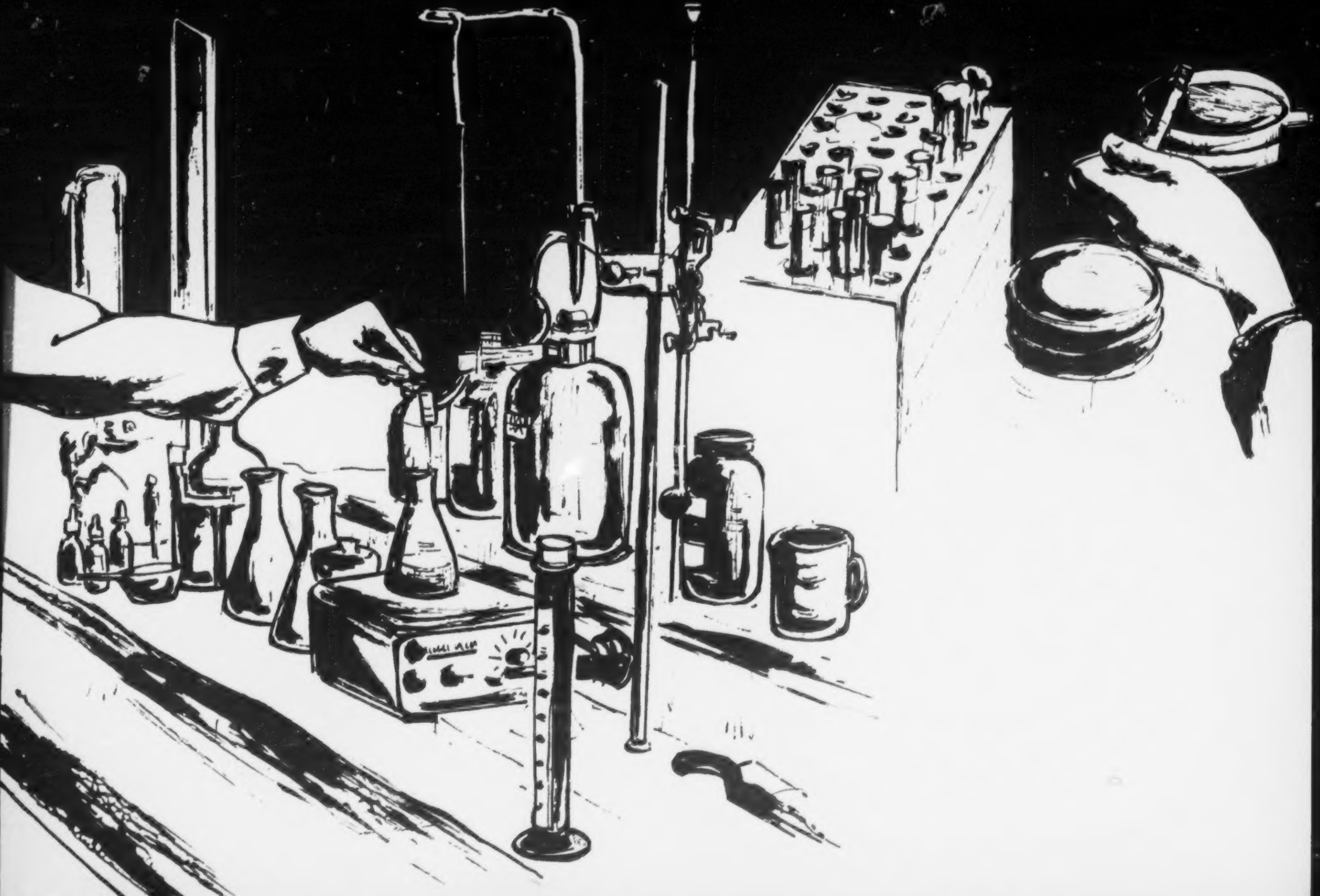
In July 1981 the Office of Rural Health Affairs initiated an agreement between the Alabama Department of Public Health and Auburn University Department of Architecture for the purpose of developing a set of designs and schematic drawings for small rural health facilities, including physician offices, primary care centers and county health departments. The Office of Rural Health Affairs coordinated the development of a plan to identify health care providers who could work with Auburn faculty and students and advise them about the requirements of rural health facilities. This office, through regular consultation with the Architectural Department, was responsible for ensuring that designs and drawings were appropriate for the needs of rural Alabama. The original time frame for completion of the project was from July to September 30, 1981. However this was later extended to December 31, 1981. Compensation to Auburn University, up to $6,851, was allocated from the Department of Health and Human Services award to the Office of Rural Health Affairs. The results of the project as of December 1981 was that a document of designs and descriptive narratives was ready for publication.

Due to the interest which rural communities have in developing rural resources and as an outgrowth of technical assistance to those communities, the Office of Rural Health Affairs produced a publication on the advantages of medical clinic boards and the process of organizing such a body. This publication, entitled "Medical Clinic Boards, Organization and Operation," was completed in April 1981 and was distributed to all rural health initiatives, health systems agencies, and communities that requested it. Reference material for this publication was primarily the Code of Alabama, Title XI, Chapter 58, which was included in the publication. Sample organization documents were also included.

In order to keep abreast of rural health providers and to extend the office's data file, a research effort was implemented to collect statistical information from all rural primary care centers in the state. Requests were made for copies of each clinic's BCRR (Bureau of Community Health Services Common Reporting Requirements). In addition interviews with project directors were conducted to gain subjective information clarifying the BCRR and giving insite into daily operations. The narrative information was completed in December 1981, and BCRR reports were collected from all but two clinics.

The Office of Rural Health Affairs also conducted a Rural Health Association workshop on the coordination of health services among county health departments and primary care centers. In addition it provided staff support for the Rural Health Advisory Council and assisted in the development of a hypertension grant proposal for a demonstration project in West Alabama. This was one of only five awarded nationwide. Collaboration with the Department of Mental Health established a patient cross referral mechanism with the Department of Public Health.

CLINICAL LABORATORY ADMINISTRATION



CLINICAL LABORATORY ADMINISTRATION

The Consolidated Annual Report on State and Territorial Public Health Laboratories compiled and published by the Centers for Disease Control showed that the number of examinations performed by the Clinical Laboratory Administration (CLA) ranked it among the top four public health laboratories in the United States. The excellent quality of the services provided was demonstrated by the fact that the laboratory achieved a 99.6 percent average on proficiency samples examined in 1981.

Several diagnostic procedures of major public health significance were instituted in the CLA during the year. The general bacteriology section began performing culture and direct fluorescent antibody tests for *Legionella pneumophila* (LDB—Legionnaires disease bacterium). The fluorescent microscopy section of the Serology Division employed the indirect immunofluorescence test (IFA) to detect serum antibodies to LDB. Titers were found in seven specimens that indicated infection at an undetermined time, and paired serum from two patients demonstrated evidence of a recent infection.

A statewide screening of all positive gonorrhea cultures for penicillin resistant strains (PPNG—Penicillinase producing *Neisseria gonorrhoeae*) was implemented in the central and all branch laboratories. An inexpensive modification of the iodametric test for beta lactamase known as the "paper strip" method is used to detect the resistant organisms. From July to October, eight PPNG strains have been identified throughout the state.

In October the Microhemagglutination Assay for antibodies to *Treponema pallidum* (MHA-TP) replaced the FTA-ABS procedure as the primary confirmatory serodiagnostic test for syphilis. The MHA-TP, in addition to being economical and simple to perform, has shown an excellent overall comparison with the FTA-ABS. However it has been reported that the MHA-TP may be less sensitive than the FTA-ABS in cases of untreated primary syphilis. For this reason the laboratory established the policy that all specimens which are non-reactive by MHA-TP will be examined by the FTA-ABS procedure. Criteria for specimen acceptance did not change and are the same as for the FTA-ABS.

The work load reporting system implemented in 1980 was further refined in fiscal year 1981. Time studies continued to be conducted on each test procedure and have resulted in a more efficient utilization of personnel and materials. Test protocols have become uniform through the laboratory system, and productivity has increasd eight percent over the same period last year. Further benefits of this program are expected to be gained now that both specimen and financial reports are being collected on a fiscal year basis.

Bacteriology Division

General Bacteriology—This section served private and hospital laboratories statewide in the identification of bacteria. The following identifications of organisms were made this fiscal year.

Achromobacter xylosoxidans—biotype I	1
Acinetobacter calcoaceticus var. *anitratus*	8
Acinetobacter calcoaceticus var. *lwoffi*	9
Actinomyces naeslundii	1
Aerococcus species	1
Aeromonas species	1
Aeromonas hydrophila	2
Arachnia propionica	1
Bacillus species	39
Bacillus brevis	1
Bacillus cereus	2
Bacteroides species	12
Bacteroides asaccharolyticus	1
Bacteroides distasonis	5
Bacteroides fragilis	11
Bacteroides ruminicola ssp. *brevis*	1
Bifidobacterium species	2
Bifidobacterium eriksonii	1
Bifidobacterium longum ssp. *longum*	1
Bordetella bronchioseptica	1
Bordetella pertussis	1
Branhamella catarrhalis	4
Brucella suis	2
Campylobacter fetus ssp. *fetus*	1
Campylobacter jejuni	33
Capnocytophaga species	1
CDC GROUP II—F	3
CDC Group II-K type 2	5
CDC GROUP IV—C (2)	1
CDC Group IV-E	1
CDC Group IV E-2	5
CDC Group DF-2	1
Citrobacter diversus	1
Citrobacter freundii	4
Clostridium species	3
Clostridium clostridiiformis ssp. *girans*	1
Clostridium innocum	1
Clostridium novyi A	1
Clostridium perfringens	11
Clostridium sphenoides	5
Clostridium subterminale	2
Corynebacterium species	21
EF-4	1
Eikenella corrodens	5
Enterobacter agglomerans	28
Escherichia coli	29
Eubacterium lentum	1
Flavobacterium species	1
Flavobacterium meningosepticum	1

Fusobacterium species	4
Fusobacterium mortiferum	1
Fusobacterium nucleatum	1
Fusobacterium varium	1
Haemophilus aegyptius	1
Haemophilus influenzae—unable to type	72
Haemophilus influenzae—Type A	1
Haemophilus influenzae—Type B	7
Haemophilus influenzae—Type C	2
Haemophilus influenzae—Type D	2
Haemophilus influenzae—Type E	4
Haemophilus influenzae—Type F	2
Haemophilus paraphrophilus	1
Haemophilus parahaemolyticus	6
Haemophilus parainfluenzae	17
Hafnia alvei	3
Klebsiella pneumoniae	4
Kingella kingii	2
Lactobacillus species	31
Listeria monocytogenes	6
Listeria monocytogenes 1b	1
Listeria monocytogenes #46	1
Micrococcus species	4
Moraxella species	8
Moraxella atlantae	1
Moraxella osloensis	5
Moraxella phenylpyruvica	2
Moraxella urethralis	2
Mycobacterium rhodochrous complex	1
Neisseria flavescens	3
Neisseria gonorrhoeae	163
Neisseria lactamica	2
Neisseria meningitidis—unable to type	5
Neisseria meningitidis—Group A	1
Neisseria meningitidis—Group B	13
Neisseria meningitidis—Group C	16
Neisseria meningitidis—Slaterus Y	1
Neisseria meningitidis—Slaterus Z'	1
Neisseria meningitidis— W135	1
Neisseria sicca	2
Neisseria subflava	6
Pasteurella haemolytica	1
Pasteurella multocida	3
Pasteurella ureae	1
Peptococcus species	4
Peptococcus assaccharolyticus	3
Peptococcus indolicus	1
Peptococcus prevotii	3
Peptococcus saccharolyticus	2
Peptostreptococcus species	6
Peptostreptococcus anaerobius	2
Peptostreptococcus intermedius	1
Propionibacterium species	9
Propionibacterium acnes	17
Propionibacterium arabinosum	1
Proteus species	2
Providencia rettgeri	1
Pseudomonas species	13
Pseudomonas acidovorans	3
Pseudomonas aeruginosa	5
Pseudomonas alcaligenes	6
Pseudomonas cepacia	12
Pseudomonas maltophilia	9
Pseudomonas mesophilica	2
Pseudomonas paucimobilis	6
Pseudomonas pseudoalcaligenes	1
Pseudomonas putida	3
Pseudomonas stutzeri (complex)	1
Pseudomonas testosteroni	2
Salmonella enteritidis ser. Enteritidis	1
Salmonella enteritidis ser. Infantis	1
Salmonella enteritidis ser.	1
London Salmonella enteritidis ser. Newport	1
Sarcina species	2
Serratia liquefaciens	1
Serratia marcescens	1
Serratia rubidaeae	2
Shigella flexneri	1
Staphylococcus—coagulase positive	4
Staphylococcus—coagulase negative	9
Streptococcus species	5
Streptococcus—Group A	4
Streptococcus—Group B	4
Streptococcus—Group B,biotype Ia	1
Streptococcus—Group B, biotype III	4
Streptococcus—Group C	4
Streptococcus—Group D (not Enterococcus)	3
Streptococcus—Group D (Enterococcus)	2
Streptococcus acidominimus	1
Streptococcus anginosus constellatus	1
Streptococcus morbillorium	3
Streptococcus MG-intermedius	1
Streptococcus mitis	2
Streptococcus mutans	2
Streptococcus pneumoniae—unable to type	4
Streptococcus pneumoniae—Type 1	1
Streptococcus pneumoniae—Type 3	3
Streptococcus pneumoniae—Type 4	1
Streptococcus pneumoniae—Type 5	1
Streptococcus pneumoniae—Type 6B	1
Streptococcus pneumoniae—Type 14	1
Streptococcus pneumoniae—Type 19	1
Streptococcus pneumoniae—Type 22	1
Streptococcus pneumoniae—Type 23	3
Streptococcus pneumoniae—Type 24	1
Streptococcus salivarius	1
Streptococcus sanguis II	10
Streptococcus uberis	2
Veillonella species	1
Veillonella parvula	2

Vibrio-Halophilic- Lactose fermenting	2
Vibrio parahaemolyticus	3
Yersinia enterocolitica	1
Serum for *Clostridium botulinum* toxicity study	2
Unable to identify	5

In addition clinical specimens were cultured for the presence of bacteria causing diphtheria, whooping cough and Legionnaires disease. Of the nine diphtheria and nine whooping cough specimens received, no positives were found. Of the 18 specimens submitted for Legionnaires disease bacterium, two were positive by the direct fluorescent antibody test and were also isolated on culture.

Enteric Bacteriology—In addition to screening 1,474 stool specimens submitted through county health departments or other public agencies, this section identified and serotyped 702 Salmonella and Shigella cultures referred by private and hospital laboratories statewide. The following enteric pathogens were isolated and serotyped.

Salmonella typhi	10
Salmonella cholera-suis bio: Kunzendorf	8
Salmonella enteritidis-serotype:	
typhimurium	319
heidelberg	85
newport	51
infantis	46
javiana	43
montevideo	20
muenchen	18
mississippi	17
saint paul	15
agona	12
derby	10
drypool	10
schwarzengrund	10
litchfield	9
livingstone	9
oranienburg	9
enteritidis	8
bareilly	7
berta	5
give	5
thompson	5
west hampton	5
muenster	4
ohio	4
alabama	3
anatum	3
braenderup	3
gaminara	3
java	3
chester	2
hartford	2
london	2
manhattan	2
miami	2
poona	2
rubislaw	2
adelaide	1
blockley	1
cairo	1
colorado	1
djugu	1
dusseldorf	1
gatow	1
havana	1
ipswich	1
johannesburg	1
kunduchi	1
mbandaka	1
newington	1
norwick	1
para typhi-B	1
pensacola	1
senftenberg	1
uganda	1
urbana	1
virchow	1
worthington	1
TOTAL	794

Arizonia hinshawii	1
Shigella sonnei	63
Shigella flexneri	6
Others	7

Rabies—During the year 939 animal brains were examined by the fluorescent antibody procedure for rabies, and 45 (4.8 percent) were determined to be positive. Species of animals found positive are:

Dogs	2
Cats	2
Raccoons	35
Bats	4
Foxes	2
TOTAL	45

Table 3-4 and Chart 3-2 give the positive rabies for the entire state.

This section also prepared the rabies infected and normal mouse brain suspensions used in rabies testing at the central and all branch laboratories.

Bordetella Pertussis—A direct fluorescent antibody test was used to screen 23 nasopharyngeal smears for *Bordetella pertussis*, the causative agent of whooping cough; and two presumptive positives were detected.

Parasitology—From the 14,079 specimens examined for parasitic infection, 2,279 positives were reported. The intestinal parasites were:

Hookworm	174
Ascaris lumbricoides	250
Enterobius vermicularis (Pinworm)	150
Trichuris trichiura	67
Strongyloides stercoralis	28
Hymenolepis nana	5
Clonorchis sinensis	47
Entamoeba coli	513
Endolimax nana	366
Giardia lamblia	542
Entamoeba hartmanni	76
Entamoeba histolytica	33
Chilomastix mesnili	8
Iodamoeba butschlii	13
Trichostrongylus sp	1
TOTAL	2,273

The positive blood parasites (malaria) were:

Plasmodium vivax	3
Plasmodium ovale	2
Plasmodium falciparum	1
TOTAL	6

Sanitary Bacteriology—Food Bacteriology—The presence of bacteria or toxins associated with foodborne illness was found in 12 of the 174 food samples submitted for examination. The bacteria or toxins detected were:

Organism or Toxin	**Food**
Bacillus cereus-(6)	Frozen Pizza, Cured Ham, 4 Mashed Potatoes
Salmonella enteritidis-ser. heidelberg (1)	Dressing
Salmonella enteritidis-ser. muenchen (1)	Marijuana
Staphylococcus-coagulase positive-(4)	Ham, Barbecue, Potato Salad, Pickle
Staphylococcus-enterotoxin A-(1)	Barbecue

Water Bacteriology—Some 17,718 water samples from both public and private supplies were tested for bacterial contamination and residual chlorine. A coliform count of over 4 per milliliter, indicating possible contamination, was reported on 1,189 samples (6.7 percent).

Dairy Bacteriology—Milk and dairy products were examined in accordance with procedures outlined in the 14th edition of *Standard Methods for the Examination of Dairy Products.* Nearly 78,000 tests were performed on the 6,192 samples received during the year. The presence of inhibitory substances was reported in seven of these products.

Other Activities—All sections of the Bacteriology Division participated in proficiency testing activities. The Centers for Disease Control (CDC) provided check specimens in bacteriology, parasitology and rabies. The *Neisseria gonorrhoeae* (GC) section served both CDC and the Tennessee State Health Department as a reference laboratory in the isolation and identification of *Neisseria gonorrhoeae.* The Food and Drug Administration provided the proficiency testing program in food bacteriology, and the state laboratory evaluation officer for water and dairy products sent split milk samples to the sanitation section. In addition the GC and rabies sections shipped check samples to branch laboratories on a regular basis.

Two new services were initiated this year. Following a pilot study to determine the accuracy of the technique, the central and all branch laboratories began screening all positive GC specimens for penicillin resistant strains (PPNG). Since July 1981 eight resistant strains have been identified statewide. A microbiologist from the GC section has spoken to venereal disease conferences in Birmingham and Montgomery to explain this new service.

In response to an increasing number of requests, the general bacteriology section has begun performing culture and direct fluorescent antibody tests for Legionnaires disease bacterium. In the initial phase of this program specimens have been split with CDC but results will be reported directly from the central laboratory in the near future.

The general bacteriology section assisted CDC staff in conducting a field training course in anaerobic bacteriology held at the central laboratory. A microbiologist from this section also attended the course. The GC section conducted a workshop for VD field workers in the use of Gram stains in the diagnosis of *gonorrhoeae.* A microbiologist attended a CDC course in Atlanta on "Principles and Bacterial Application of Fluorescent Antibody Techniques."

In the Bacteriology Division there were three Microbiologist IV's, five Microbiologist III's, five Microbiologist II's, one Microbiologist I and two Laboratory Technician II's.

Central Services

Purchasing—The purchasing office processes all requisitions from the central and branch laboratories, orders and distributes the supplies and equipment required for operation, and keeps inventory records. Working in conjunction with the purchasing section, stockroom personnel fill, pack and ship orders. They inventory stock and dispense diagnostic supplies to county health offices and the public.

A concerted effort has been made to inventory stock carefully and purchase prudently in order to continue efficient operation in the face of inflationary price increases and budgetary cuts. Some new procedures have been initiated in shipping, supplying and other areas to keep expenditures at a minimum.

This office also administers the janitorial functions, mail pick-up and delivery and semiannual inventories of all accountable equipment. This unit records, packs and ships specimens to the Centers for Disease Control in addition to preparing and distributing specimen containers statewide.

Animal House—Mice were bred in the animal house for rabies work, food specimens and mycology. Brains were removed from animal heads for rabies examination on a routine basis.

Media—In addition to preparing 450,480 Thayer-Martin plates for use in the statwide GC screening program, the media laboratory prepared 267 different media, reagents and solutions for use in the central laboratory. The quantity of each follows.

Media and Reagents

Enteric Bacteriology	1,214 liters
General Bacteriology	374 liters
GC	7,686 liters
Sanitary Bacteriology	403 liters
CF	149 liters
Mycology	217 liters
Regular TB	1,421 liters
Special TB	456 liters
Miscellaneous	63 liters
TOTAL VOLUME	11,983 liters

Solutions

FA	290 liters
Parasitology	179 liters
IFA	588 liters
Milk and Water	993 liters
TOTAL VOLUME	1,990 liters

Washroom—This section decontaminates, washes and sterilizes glassware and other laboratory equipment. Over 1.5 million pieces of glassware were handled during the year. Washroom personnel also prepared 28,841 sterile milk and water sample bottles for statewide distribution and 5,796 dilution blanks for use in the central laboratory milk testing program.

Quality Control—Quality control testing was consolidated into a separate section this year. The responsibility of this section is to test and evaluate all media and reagents prepared in the laboratory to ensure that they meet specific performance requirements. Approximately 1,700 tests were performed on 627 lots of general bacteriology media and 53 lots (approximately 7,500,000 milliliters) of Thayer-Martin media (TM) were checked, and 27 percent of these were forwarded to CDC for review. All lots of the TM media were found by this section and CDC to be acceptable, and only four lots of the other media (less than 1 percent) were rejected.

Personnel—Central Services employed one Microbiologist V, one Microbiologist IV, one Microbiologist II, one Microbiologist I, two Clerk Typist II's, one Clerk Stenographer I, one Laboratory Technician III, four Laboratory Technician II's, four Laboratory Technician I's, six Laboratory Aide II's and five laborers.

Clerical Division

Over 576,839 reports were mailed from the central laboratory in 1981. Handling the telephone switchboard, typing and mailing reports, maintaining personnel records and numerous other clerical functions were carried out by one Clerk IV, one Clerk Stenographer III, two Clerk Typist III's, one Clerk III, three Clerk Stenographer II's, five Clerk Typist II's and three Clerk Typist I's. This is a decrease of three employees in the Clerical Division from the previous year.

Serology Division

Syphilis Serology—The syphilis serology section performed 85,035 examinations on 79,412 specimens utilizing the VDRL slide agglutination test. The results of these examinations are listed in Table 3-1.

TABLE 3-1
SYPHILIS EXAMINATIONS

VDRL Slide Test	Specimens	Reactives	Examinations	Percent Reactive
Routine	68,998	3,691	74,560	5.34
Premarital	8,648	121	8,846	1.39
Spinal fluids	1,768	1	1,729	

Control serums were furnished to branch and clinical laboratories on request. In addition quality control testing was performed on reagents before distribution to branch laboratories.

Premarital Approval and Proficiency Testing—Laboratories performing premarital blood tests for syphilis were reviewed for certification. The central laboratory administered an ongoing quality control program for 98 Red Cross, blood banking and clinical laboratories performing these tests. Also laboratories licensed by the Clinical Laboratories Improvement Act (CLIA) to perform syphilis serology on an interstate basis were evaluated during the year.

Quality control was accomplished by:

1. Sending ten prepared serum specimens of graded reactivity five times a year.
2. Evaluating and reporting results.
3. Inspecting each laboratory at least once every two years and more often if needed.
4. Consulting with laboratory personnel.
5. Training when a refresher course is indicated.

Adequacy of test performance was determined by the average disagreement of no more than 10 percent and at least a 90 percent reproducibility on paired serums.

Chart 3-1 shows the distribution of laboratories certified in syphilis serology.

Fungal, Viral and Rickettsial Serology—Complement Fixation Tests (Fungal)—A complement fixation test for histoplasmosis (both mycelial and yeast phases), blastomycosis and coccidioidomycosis was performed on 1,845 specimens. Those showing a titer of 1:8 or above were:

Histoplasma capsulatum

Mycelial	Yeast	Both
15	36	11

Blastomyces dermatitidis
31

Coccidioides immitis
9

B. dermatitidis & C. immitis
1

B. dermatitidis & H. capsulatum
27

C. immitis & H. capsulatum
1

B. dermatitidis & C. immitis
H. Capsulatum yeast
2

B. dermatitidis & H. capsulatum yeast
19

B. dermatitidis & H. capsulatum mycelial
3

Unsatisfactory
45

Microimmunodiffusion Tests—During fiscal year 1981 microimmunodiffusion testing was performed on 1,842 sera for histoplasmosis and blastomycosis. From these the following bands were produced.

Histoplasmosis

M Band	119
M & H Band	51

Blastomycosis

A Band	39

Aspergillosis testing on 291 sera by this same method resulted in the following positives.

Aspergillus Species	**Number of Bands**
Aspergillus niger	10
Aspergillus flavus	3
Aspergillus fumigatus	6

Blastomycosis testing by this method was added in January of 1981.

An inlab study was also conducted by this section on the identification of pathogenic fungal isolates by immunodiffusion. Results obtained were in agreement with the Centers for Disease Control's findings.

Complement Fixation Tests (Viral)—Paired serums for antibodies to respiratory, neurotropic, enteric and exanthem viruses, rickettsial, and chlamydia totaled 1,251. Results interpreted as compatible with recent infection (specimens showing a fourfold or greater rise in titer of the convalescent specimen over the acute specimen) were:

Influenza (Type A)	66
Influenza (Type B)	1
Adenovirus	3
Mycoplasma pneumoniae	21
Chlamydia group	9
Respiratory Syncytial	1
St. Louis encephalitis	1
Herpes hominis group	14
Mumps viral	5
Spotted Fever group	12
Varicella	2
Cytomegalovirus	9
Rubeola virus	3
TOTAL	147

Negative results were obtained on 429 paired serums, and 26 pairs were unsatisfactory.

Results suggesting involvement at some undetermined time but not necessarily in the current illness were:

Influenza A	353
Influenza B	76
Adenovirus group	68
Mycoplasma pneumoniae	365
Chlamydia	12
Respiratory Syncytial	7
Parainfluenza (Type 2)	2
St. Louis encephalitis	8
Mumps viral	51
Herpes hominis	250
Murine Typhus	4
Spotted Fever group	31
Polio Type II	1
Rubeola	20
Varicella	10
Cytomegalovirus	113
TOTAL	1,372

Specimens received for viral and rickettsial serology were tested against batteries of antigens. Examinations totaled 13,750.

Upon special request 217 single specimens were tested. However since no interpretation of the results of a single specimen can be made, titers only were reported.

Twelve samples received from CDC as part of a viral and fungal proficiency testing program achieved 100 percent agreement and reproducibility.

The special serology laboratory was also involved with CDC in conducting serological surveillance for dengue fever in Alabama. No titers were obtained.

Hemagglutination Tests—The hemagglutination inhibition test for rubella antibodies was performed on 170 paired serums and 16,018 single specimens. One pair showed a fourfold or greater rise in titer.

The $4.00 per specimen fee previously charged for routine baseline testing on samples from private physicians and laboratories was increased to $10.00.

The rubella hemagglutination inhibition procedure was performed on six proficiency testing specimens provided by CDC. Results obtained were 100 per cent in agreement and reproducibility.

The hemagglutination inhibition test procedure was also performed on 14 specimens for the detection of antibodies to St. Louis encephalitis, eastern equine encephalitis, western equine encephalitis and yellow fever. Titers to St. Louis encephalitis were obtained on seven specimens.

A total of 250 influenza specimens was also tested by the hemagglutination inhibition method. Sera were screened for antibodies against influenza A/Bangok, A/Brazil, B/Hong Kong and B/Singapore. Sixty-six pairs had titers to A/Bangok; 71 pairs had titers to A/Brazil; and three pairs had titers to B/Hong Kong and B/Singapore. Fifty-five paired sera were compatible with A/Bangok, and six pairs were compatible with A/Brazil. One isolate was received from Birmingham branch laboratory. It was serologically identified as A/Bangok.

The indirect hemagglutination test for amebiasis was performed on 387 specimens with positive results obtained on four of these serums.

This section prepared 500 amebic serology kits for distribution. All serological requests referred to CDC by the central laboratory were received, processed and forwarded by the special serology section.

Fluorescent Microscopy—The Fluorescent Treponemal Antibody-Absorption (FTA-ABS) test for syphilis was performed on 3,790 specimens with the following results:

Reactive	2,320
Nonreactive	1,333
Borderline	81
Unsatisfactory	56

The indirect immunofluorescence test was employed for the detection of antibodies to *Toxoplasma gondii*. Of the

1,106 specimens tested, titers of 1:16 or greater were obtained on 374, with 172 of these titering 1:256 or greater. Fifty-seven serum specimens were submitted to CDC to be tested for IgM antibodies to *T. gondii*. In addition sera from three dogs and ten cats were referred to CDC for toxoplasmosis testing.

Beginning in May the indirect immunofluorescence test was used to detect antibodies to *Legionella pneumophila*. Of the 113 serum specimens tested, 48 had titers of 1:64 or greater. Seven specimens titered 1:256 or greater, providing presumptive evidence of infection at an undetermined time. Paired sera from two patients demonstrated a fourfold or greater rise in titer, showing evidence of a recent infection.

Bacterial Agglutination Tests—A tube agglutination test for brucella and/or tularemia was performed on 97 specimens. Four specimens were positive for brucella, and two specimens were positive for tularemia.

PKU Screening—A total of 99,846 blood specimens was tested for phenylalanine levels. Results are summarized below.

Newborn (White)	32,000
Newborn (Black)	18,312
Four-week (White)	32,337
Four-week (Black)	15,962
Older Children	25
Maternal	11
Center for Developmental and Learning Disorders	64
Miscellaneous	21
REPEATS:	
Inadequate bloods	278
Upper limits of normal	95
Feeding less than 24 hours	153
Slight transient elevations	49
Dietary follow-up	539
TOTAL	99,846

Six PKU positives were detected during fiscal year 1981. Total positives since the program began in 1964 follow. (The 1980 annual report reflected calendar year statistics; therefore the cumulative total for this report is only three more than reported last year.)

Newborn (White)	43
Newborn (Black)	2
Four-week (White) First Test	2*
Older Children	5
Partlow (New Admissions)	3
TOTAL	55

PKU Chemistry—Chemical determinations were made as follows:

Nitroprusside test for cystinuria and homocystinuria (urine specimens)	42
Chromatography (Sulfanilic acid stained for histidine and urinary metabolites-urine specimens)	42
Chromatography (ninhydrin stained for amino acid disorders-blood and urine specimens)	179

A total of 263 tests for amino acid was performed on 179 blood and urine specimens from infants and older children referred from physicians throughout the state.

Twelve fluorometric analyses were performed to determine phenylalanine and tyrosine levels on six PKU infants detected during fiscal year 1981.

Neonatal Hypothyroid Screening—The results of the statewide neonatal hypothyroid screening program have been tabulated. Table 3-2 gives the fiscal year 1981 report, and Table 3-3 reports the newborns tested since the program began.

TABLE 3-2
NEONATAL HYPOTHYROID SCREENING

T_4 (Thyroxine Level) Specimens	Number Tested	Examinations	Cases Detected
Newborn (White)	32,000	32,000	7
Newborn (Black)	18,312	18,312	3
Four-Week (White)	32,337	32,337	2
Four-Week (Black)	15,962	15,962	1
Inadequate Bloods	355	355	
Low T_4 Repeats		18,756	
TSH (Thyroid Stimulating Hormone)		18,072	
TOTAL	98,966	135,794	13

TABLE 3-3
NEWBORNS TESTED

Year	Newborns	Cases Detected	Incidence
1978	38,695	4	1/9,673
1979	50,834	10	1/5,083
1980	51,122	10*	1/5,112
1981‡	50,312	13	1/3,870
TOTAL	190,963	37	1/5,161

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*Six week old infants tested for first time by the Clinical Laboratory Administration included in this figure.

*Includes one infant with transient hypothyroidism.
‡Statistics for fiscal year 1981.

Abnormal Hemoglobin Screening (Including Sickle Cell Anemia—Some 57,937 specimens were tested by electrophoresis for abnormal hemoglobins. The results follow.

AA	50,308
AS	4,451
AC	1,359
SS	60
SF	66
SC	68
AF	751
A high F	254
CC	6
AG Philadelphia	47
A Korle Bu	2
AD Los Angeles	10
AI	4
AN Baltimore	8
AS + GS hybrid	1
AE	66
EE	1
AO Arab	16
A Montgomery	2
A Hope	1
A Camden	1
AG Galveston	1
AG San Jose	1
ASI	1
$A+\alpha$ chain variant	1
Camden-S	1

Thalassemias:

CA	3
SFA	7
FA	10
SAF	9
SA	4
ASA_2	3
AA_2	12
AFA_2	1
FF	1
SAA_2	2
CAF	1
FAS	1
Unsatisfactory	344
Repeats	52
TOTAL	57,937

Electrophoresis at an acid pH was performed on 7,285 specimens to distinguish other abnormal hemoglobins having the same mobilities as S and C at an alkaline pH.

Polypeptide chain involvement was determined by globin chain electrophoresis on 120 specimens.

Cytology—Microscopic examinations of endocervical, cervical, vaginal and breast smears for precancerous and cancerous leisons were performed for patients from 50 counties participating in the cancer detection program.

Patients with parasitic, viral and bacterial atypias were also detected and referred for treatment.

The Papanicolaou method of staining and classifying was used for the 19,462 specimens received during fiscal year 1981.

All abnormal or atypical smears with a classification of II or above were referred to a pathologist for review, final diagnosis and recommendations. Quality control was maintained by the pathologist's review of ten percent of all Class I smears found in the laboratory. A report of the specimens tested follows.

Total Smears Screened		19,462
Class I	18,872	
Class II	324	
Class III	43	
Class IV	3	
Class V	0	
Unsatisfactory	57	
Breast smears	13	

Continuing Education—A microbiologist in the Serology Division served as training coordinator for eight workshops involving personnel from health departments, blood banks, hospitals and clinical laboratories. They were:

1. Two workshops in "Health and Medical Laboratory Management" conducted by CDC.
2. "Laboratory Methods in Anaerobic Bacteriology"—conducted by CDC.
3. Two workshops in "Current Laboratory Methods for Detecting Syphilis"—conducted by laboratory microbiologists.
4. "Serodiagnosis by Enzyme Immunoassay (EIA)—conducted by CDC.
5. "Darkfield Microscopy for Identifying *Treponema Pallidum*"—presented by the state Venereal Disease Control presonnel.
6. "Gram Stains for Rapid Diagnosis of *Gonorrhoeae*"—sponsored by VD Control and conducted by laboratory microbiologists.

Qualified participants were granted continuing education units under the American Society for Medical Technology's Professional Acknowledgement of Continuing Education (P.A.C.E.) program.

The Centers for Disease Control continued to furnish the laboratory with updated materials including slides, tapes, study manuals and video tapes on various laboratory subjects. These materials were made available to laboratory and teaching personnel across the state.

During the year microbiologists attended CDC courses in Atlanta on:

1. "Laboratory Diagnosis by Serologic Methods"
2. "Principles of Complement Fixation"
3. "Identification of Pathogenic Fungal Isolates by Immunodiffusion"

Three microbiologist attended a field workshop conducted by CDC in "Serodiagnosis by Enzyme Immunoassay". One microbiologist attended a seminar, "Planning and Coordinating Sickle Cell Screening in Alabama," and two microbiologists attended the forum on "Sickle Cell Planning and Coordination." Personnel in the cytology section attended a workshop sponsored by the Southern Association of Cytotechnologists, Inc., about "Changes Seen in Cytotechnology," and another attended the Southern Association of Cytotechnologist's annual meeting in Nashville, Tennessee.

Other Activities—The Student Coalition for Community Health held its annual health fairs in Calcedeaver, Coffeeville and Garden City. The laboratory assisted by providing supplies and consultation and by screening 6,284 specimens for abnormal hemoglobins and 766 specimens for syphilis serology. Thirteen of the blood specimens were reactive for syphilis.

The Serology Division continued to serve as a reference laboratory for CDC and the states of Florida and Tennessee for the Rapid Plasma Reagin (18 mm circle) Card Test (RPR), the VDRL slide agglutination test, and the microhemagglutination assay for Treponema pallidum (MHA-TP). This division served CDC as a reference laboratory for hemoglobinopathies, rubella and febrile agglutinations.

Personnel consisted of one Microbiologist IV, five Microbiologist III's, six Microbiologist II's, eight Microbiologist I's, one Laboratory Technician III, two Laboratory Technician I's, and one Laboratory Aide II.

Tuberculosis and Mycology Division

Mycobacteriology—A total of 31,398 specimens for tuberculosis examinations was received from October 1, 1980, to September 30, 1981. The total number of examinations performed on these specimens was 193,693. A breakdown of examinations and results follows.

Total specimens			31,398
Microscopic smears		30,104	
Positive	1,061		
Negative	29,043		
Cultures for identification		828	
Unsatisfactory specimens		466	

Total cultures		30,932
Positive	2,215	
Negative	25,666	
Unsatisfactory contaminated	1,501	
Mycobacteria not *M. tuberculosis**	1,519	
Nocardia asteroides	26	
Nocardia brasiliensis	5	

*Only 631 of these cultures were suspected pathogens and were identified as follows.

M. kansasii	40
M. marinum	3
M. scrofulaceum	7
M. avium—M. intracellulare complex	501
M. chelonei subspecies *abscessus*	38
M. fortuitum	42

Special tests performed for identification were:

Subculture		1,497
Primary biochemicals (identification of *M. tuberculosis)*		938
Secondary biochemicals (identification of all other mycobacteria)		559
Serotyping		311
Drug susceptibility test		1,239
Direct tests	331	
Indirect tests	908	

Mycology—The 4,807 specimens received by the mycology section represent a 10.89 percent increase over the last year. The following pathogenic, or possible pathegenic, fungi were identified.

Blastomyces dermatitidis	13
Coccidioides immitis	3
Cryptococcus neoformans	24
Cryptococcus albidus	2
Cryptococcus laurentii	2
Cryptococcus luteolus	1
Histoplasma capsulatum	35
Sporothrix schenckii	7
Nocardia asteroides	2
Nocardia brasiliensis	2
Cladosporium carrionii	1
Petriellidium boydii	6
Exophiala jeanselmei	9
Fonsecaea pedrosoi	1
Phialophora verrucosa	2
Candida albicans	93
Candida guillermondii	6
Candida krusei	10
Candida parapsilosis	52
Candida pseudotropicalis	4
Candida rugosa	1
Candida stellatoidea	1
Candida tropicalis	74
Torulopsis glabrata	51
Torulopsis candida	1
Trichosporon cutaneum	6
Geotrichum candidum	22
Aspergillus fumigatus	33
Aspergillus clavatus	1
Aspergillus flavus	36
Aspergillus glaucus	1
Aspergillus nidulans	25
Aspergillus niger	24
Aspergillus terreus	7
Microsporum canis	6
Microsporum gypseum	2
Microsporum nanum	2
Epidermophyton floccosum	5
Trichophyton mentagrophytes	6
Trichophyton rubrum	55
Trichophyton schoenleinii	1
Trichophyton tonsurans	8
Trichophyton verrucosum	1

Animals were inoculated with twelve soil samples, and *Histoplasma capsulatum* was isolated and identified from one of the samples.

Other Activities—Participation in the International Working Group on Mycobacterial Taxonomy Open-ended Study on Slowly Growing Mycobacteria continued this year. During the last three years, 86 unknown cultures have been received and examined by 47 identification procedures. The first report of this cooperative study was published in the *International Journal of Systematic Bacteriology*, January, 1981, Vol. 31, p. 1-20.

The primary drug resistance study with CDC was continued this year. To date 1,200 primary tuberculosis cultures have been forwarded to CDC for this study.

The mycology section served as a reference laboratory for CDC and the New York City Public Health Laboratory in their proficiency testing programs. The Centers for Disease Control sent no proficiency testing samples in mycobacteriology this year.

This laboratory continued to give bench training to the medical technology students from Baptist Medical Center of Montgomery. The training included diagnostic methods for tuberculosis and mycology.

During 1981 revised and up-to-date procedure manuals were written. All diagnostic techniques used in the tuberculosis and mycology laboratories were included.

The personnel consisted of one Microbiologist V, one Microbiologist IV, three Microbiologist III's, four Microbiologist II's, two Microbiologist I's, one Laboratory Technician III and two Laboratory Technician I's.

Birmingham Branch Laboratory

The Birmingham branch laboratory performed 351,460 examinations on 284,853 specimens in fiscal year 1981. These examinations included the following:

1. 74,662 VDRL slide tests for syphilis of which 2.7 percent were positive.
2. 170,556 *Neisseria gonorrhoeae* cultures of which 5.7 percent were positive.
3. 12,656 dairy samples of which 14.2 percent were positive.
4. 26,186 water samples of which 11.1 percent were positive.
5. 770 animal brains for rabies testing. The 11 positives found in 1981 were all bats and represented a 1.5 percent positivity rate.

The state laboratory evaluation officer, assisted by the sanitary bacteriology section, prepared and submitted split milk proficiency test samples to all state milk laboratories. He also surveyed and certified 16 analysts in five water laboratories and seven analysts in two milk laboratories. The evaluation officer attended the Alabama Dairy Conference, the National Shellfish Sanitation Program Workshop, the FDA Region IV Grade A PMO Conference, the Basic Environmentalist Training Course, the Interstate Milk Shipments Conference and the EPA Laboratory Certification Workshop.

The Birmingham branch laboratory participated in split sample proficiency testing in rabies, *Neisseria gonorrhoeae* cultures, syphilis serology, dairy products and fluoride analysis in water. Rabies, *Neisseria gonorrhoeae* and syphilis serology sections were surveyed by microbiologists from the central laboratory in Montgomery. The laboratory was also surveyed and certified by the EPA for water analysis and by Health and Human Services, Medicaid Bureau, for *Neisseria gonorrhoeae* culture and VDRL tests.

Two microbiologists attended a supervisors' workshop conducted by CDC. One microbiologist attended a technical seminar conducted by the Clinical Laboratory Administration. Three microbiologists attended an Immunofluorescent Assay Workshop conducted by Electro-Nucleonics.

The 22 counties in the north central part of the state continued to be the service area of this laboratory.

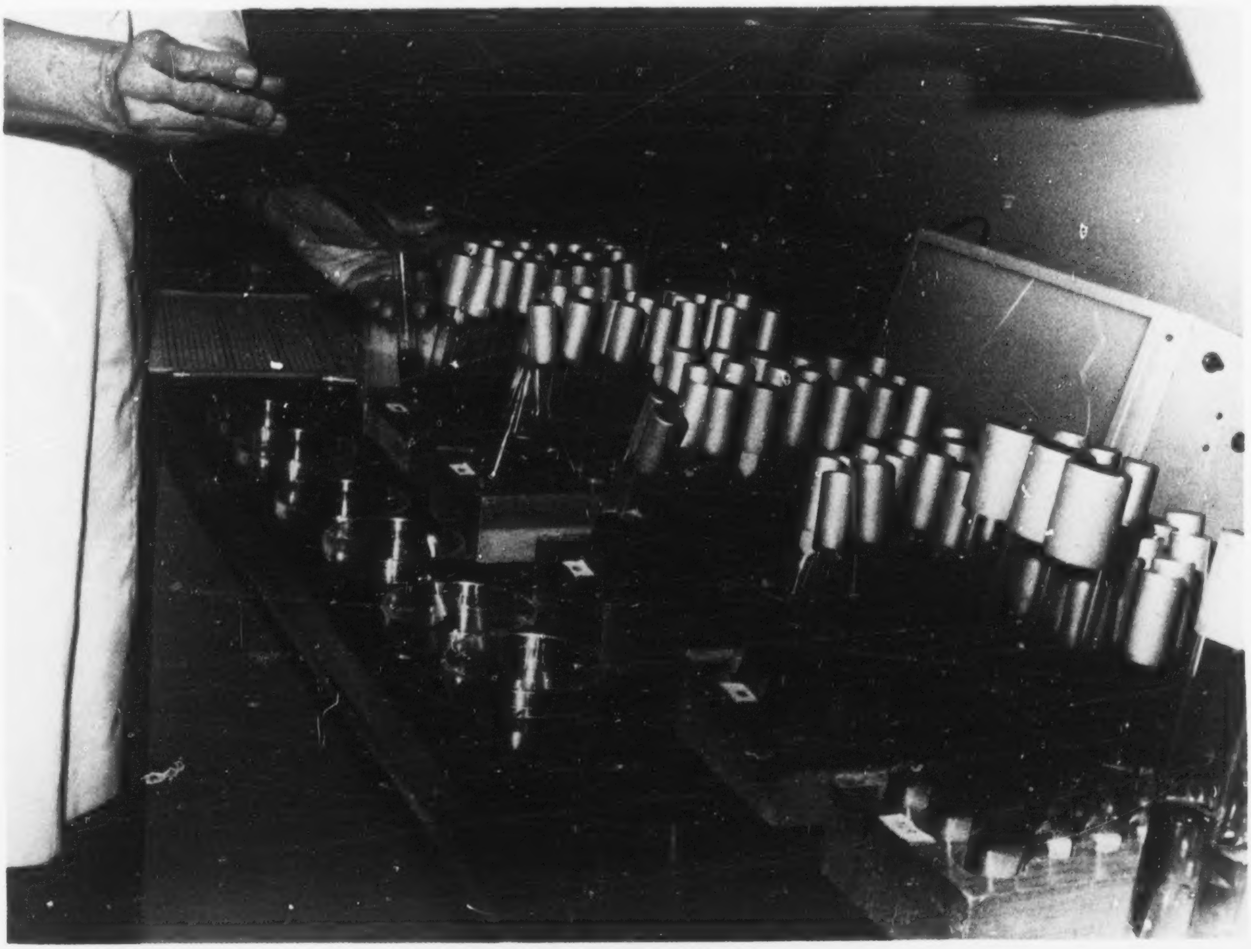
There was a net loss of three employees during the year for a year's end total of 20. Personnel for the year included one Microbiologist V, one Microbiologist IV, four Microbiologist III's, four Microbiologist II's, two Microbiologist I's, two Laboratory Technician III's, two Laboratory Technician II's, three Laboratory Technician I's, one Laboratory Aide I and three Clerk Typist II's.

Decatur Branch Laboratory

The Decatur branch laboratory peformed 133,479 tests on 96,410 specimens in the fiscal year 1981. These tests included the following:

1. 34,804 VDRL slide tests for syphilis of which 2.2 percent were positive.
2. 13,014 Rh Tests.
3. 24,737 *Neisseria gonorrhoeae* cultures of which 7.6 percent were positive.
4. 639 fluorescent antibody tests for rabies from which 33 percent were found.
5. 16,496 public and private water samples of which 10.3 percent were positive.
6. 6,672 milk and dairy samples of which 7.9 percent were positive.

The Decatur branch laboratory continued to participate in the proficiency testing programs for milk analysis, syphilis serology, *Neisseria gonorrhoeae* and rabies detection. The laboratory also examined Rh factor check specimens sent by CDC.



Rabies specimens continued to increase due to positive specimens found in five North Alabama counties. The majority of the positives were skunks and bats, but rabies was found in two domestic animals—one dog and one cat.

In other activities laboratory personnel conducted tours of the laboratory and lectured to microbiology classes from Calhoun Junior College. One microbiologist attended a one week rabies training course at CDC.

Personnel consisted of one Microbiologist IV, one Microbiologist III, three Microbiologist II's, one Laboratory Technician II, one Laboratory Technician I and one Clerk Typist I.

Dothan Branch Laboratory

The Dothan branch laboratory performed 31,866 tests on 18,744 specimens during the 1981 fiscal year. These examinations included the following:

1. 9,838 *Neisseria gonorrhoeae* cultures of which 686 (6 percent) were positive.
2. 2,373 dairy samples of which 34 percent were positive.
3. 6,496 water samples from public and private sources of which 3.7 percent were positive.

The laboratory also shipped 247 animal heads to the central laboratory for rabies testing.

In 1981 the Dothan branch laboratory was approved by Medicaid for *Neisseria gonorrhoeae* testing.

In other activities the laboratory received proficiency test samples for milk analysis and *Neisseria gonorrhoeae* samples from both the central laboratory and CDC.

The microbiologist attended a rabies seminar sponsored by the Houston County Health Department and local veterinarians.

Personnel consisted of one Microbiologist II, one Laboratory Technician II and one Laboratory Technician I.

Mobile Branch Laboratory

The Mobile branch laboratory performed 144,404 examinations on 114,523 specimens this year. These examinations included the following:

1. 40,876 slide tests for syphilis of which 4.7 percent were positive.
2. 195 shellfish samples with over 30 percent exceeding the coliform standards.
3. 137 bay water samples of which 16 percent were positive.
4. 55,885 *Neisseria gonorrhoeae* cultures of which 6 percent were positive. One penicillin resistant strain was found.
5. 237 animal brains for rabies. The three positives found were one dog, one raccoon and one bat.
6. 3,804 dairy samples of which 23 percent were positive.
7. 13,395 water samples from public and private supplies of which 6.4 percent were positive.

In other activities this laboratory was approved to do Medicaid testing of serology and *Neisseria gonorrhoeae* culture specimens. The laboratory received proficiency testing specimens in rabies, *Neisseria gonorrhoeae*, syphilis serology and milk testing.

One microbiologist participated in a course conducted by CDC on "Laboratory Methods for Diagnosing Rabies." Two microbiologists attended a workshop in "Health and Medical Laboratory Management" held in Mobile.

Personnel consisted of one Microbiologist IV, five Microbiologist II's, two Microbiologist I's, two Laboratory Technician I's, one Laboratory Aide I and one Clerk Typist II. This is a decrease of two from the number of employees last year.

CHART 3-1
SYPHILIS SEROLOGY CERTIFIED LABORATORIES

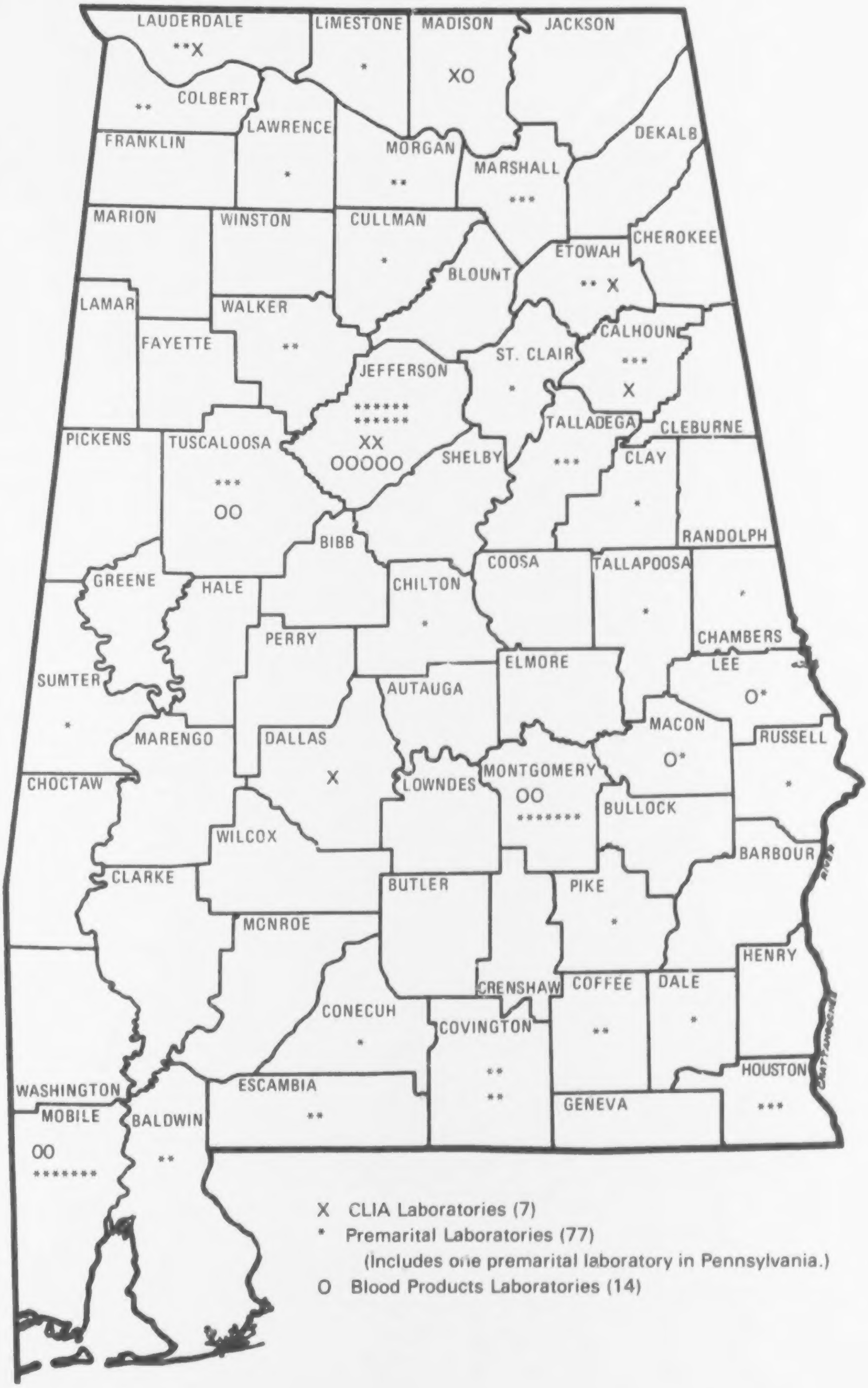
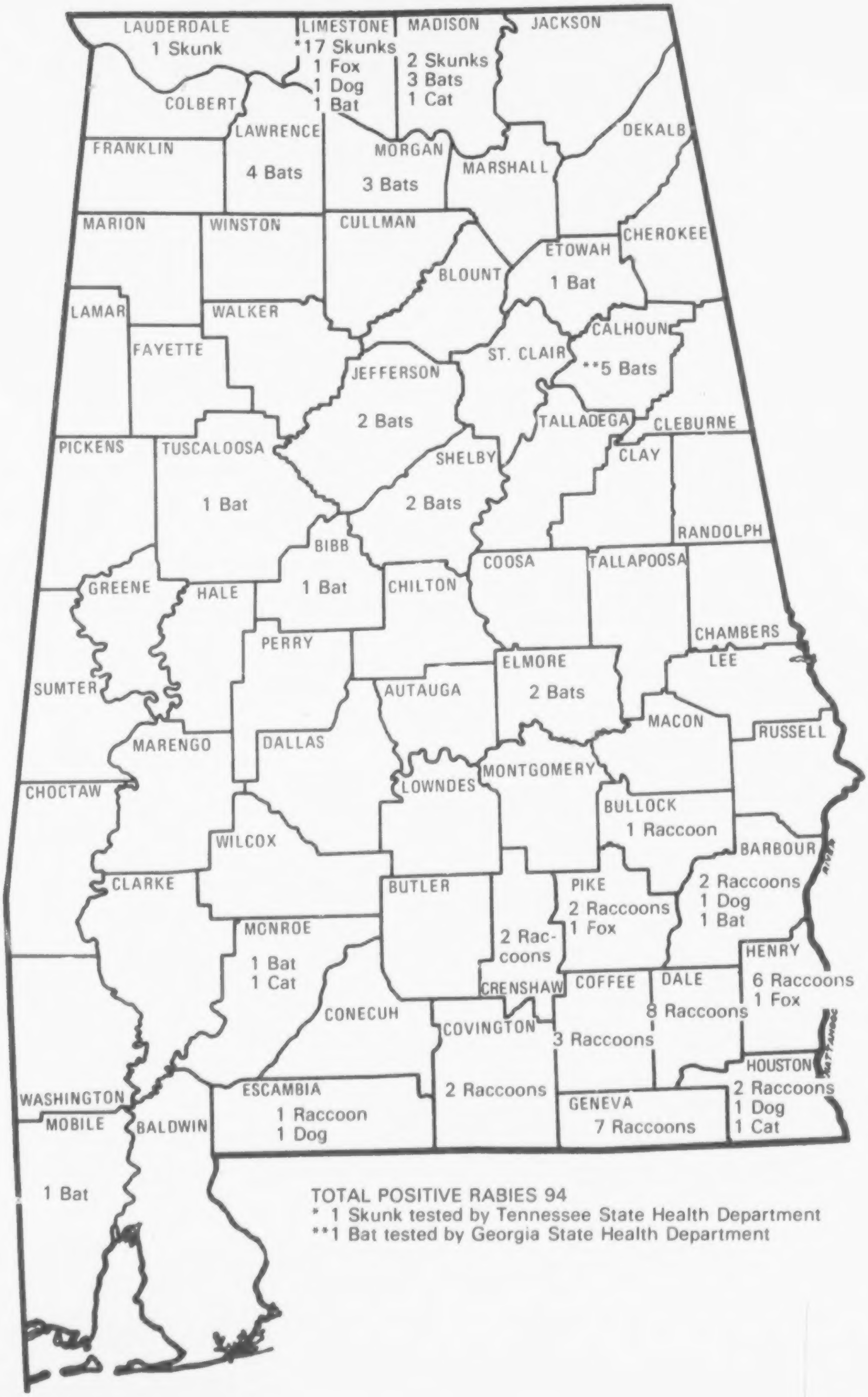

LAUDERDALE **X
LIMESTONE *
MADISON XO
JACKSON
COLBERT **
FRANKLIN
LAWRENCE *
MORGAN **
MARSHALL ***
DEKALB
MARION
WINSTON
CULLMAN *
CHEROKEE
ETOWAH ** X
BLOUNT
LAMAR
WALKER **
FAYETTE
CALHOUN *** X
ST. CLAIR *
JEFFERSON ****** ****** XX OOOOO
TALLADEGA ***
CLEBURNE
PICKENS
TUSCALOOSA *** OO
SHELBY
CLAY *
RANDOLPH *
BIBB
COOSA
TALLAPOOSA *
GREENE
HALE
CHILTON *
PERRY
CHAMBERS
ELMORE
SUMTER *
AUTAUGA
LEE O*
MACON O*
RUSSELL *
MARENGO
DALLAS X
CHOCTAW
LOWNDES
MONTGOMERY OO *******
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
PIKE *
MONROE
HENRY
CRENSHAW
COFFEE **
DALE *
CONECUH *
COVINGTON ** **
HOUSTON ***
WASHINGTON
ESCAMBIA **
GENEVA
MOBILE OO *******
BALDWIN **
RIVER
CHATTAHOOCHEE
X CLIA Laboratories (7)
* Premarital Laboratories (77)
(Includes one premarital laboratory in Pennsylvania.)
O Blood Products Laboratories (14)

TABLE 3-4
POSITIVE RABIES IN ALABAMA FOR FISCAL YEAR 1981

Entire State	October	November	December	January	February	March	April	May	June	July	August	September	TOTAL
Autauga													
Baldwin													
Barbour									1 raccoon	1 dog 1 raccoon		1 bat	4
Bibb												1 bat	1
Blount													
Bullock							1 Raccoon						1
Butler													
Calhoun										1 Bat	**2 Bats	2 Bats	5
Chambers													
Cherokee													
Chilton													
Choctaw													
Clarke													
Clay													
Cleburne													
Coffee					1 Raccoon			1 Raccoon		1 Raccoon			3
Colbert													
Conecuh													
Coosa													
Covington									1 Raccoon		1 Raccoon		2
Crenshaw	1 Raccoon				1 Raccoon								2
Cullman													
Dale	1 Raccoon	1 Raccoon	2 Raccoons						1 Raccoon	1 Raccoon		2 Raccoons	8
Dallas													
DeKalb													
Elmore						1 Bat					1 Bat		2
Escambia				1 Dog								1 Raccoon	2
Etowah												1 Bat	1
Fayette													
Franklin													
Geneva			1 Raccoon	1 Raccoon				1 Raccoon		2 Raccoons	2 Raccoons		7
Greene													
Hale													
Henry	1 Raccoon				1 Raccoon	1 Raccoon		1 Raccoon	1 Raccoon	1 Raccoon	1 Fox		7
Houston	1 Dog	1 Cat									1 Raccoon	1 Raccoon	4
Jackson													
Jefferson											1 Bat	1 Bat	2
Lamar													
Lauderdale												1 Skunk	1
Lawrence											1 Bat	3 Bats	4
Lee													
Limestone	1 Skunk	1 Skunk		2 Skunks	2 Skunks	2 Skunks	1 Skunk	1 Skunk 1 Fox	*1 Skunk 4 Skunks		1 Dog 1 Bat 1 Skunk	1 Skunk	20
Lowndes													
Macon													
Madison	1 Bat	1 Skunk										1 Skunk 2 Bats 1 Cat	6
Marengo													
Marion													
Marshall													
Mobile								1 Bat					1
Monroe								1 Bat	1 Cat				2
Montgomery													
Morgan								1 Bat			1 Bat	1 Bat	3
Perry													
Pickens													
Pike	1 Raccoon					1 Fox		1 Raccoon					3
Randolph													
Russell													
St. Clair													
Shelby												2 Bats	2
Sumter													
Talladega													
Tallapoosa													
Tuscaloosa										1 Bat			1
Walker													
Washington													
Wilcox													
Winston													
TOTAL	7	4	3	4	5	5	2	9	10	9	14	22	94

*Tested by Tennessee Health Department ** 1 Bat—Tested by Georgia Health Department

CHART 3-2
POSITIVE RABIES FOR FISCAL YEAR 1981


LAUDERDALE
1 Skunk
LIMESTONE
*17 Skunks
1 Fox
1 Dog
1 Bat
MADISON
2 Skunks
3 Bats
1 Cat
JACKSON
COLBERT
FRANKLIN
LAWRENCE
4 Bats
MORGAN
3 Bats
MARSHALL
DEKALB
MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
1 Bat
BLOUNT
LAMAR
WALKER
FAYETTE
CALHOUN
**5 Bats
ST. CLAIR
JEFFERSON
2 Bats
TALLADEGA
CLEBURNE
PICKENS
TUSCALOOSA
1 Bat
SHELBY
2 Bats
CLAY
RANDOLPH
BIBB
1 Bat
COOSA
TALLAPOOSA
GREENE
HALE
CHILTON
CHAMBERS
PERRY
ELMORE
2 Bats
LEE
SUMTER
AUTAUGA
MACON
RUSSELL
MARENGO
DALLAS
MONTGOMERY
CHOCTAW
LOWNDES
BULLOCK
1 Raccoon
WILCOX
BARBOUR
2 Raccoons
1 Dog
1 Bat
CLARKE
BUTLER
PIKE
2 Raccoons
1 Fox
2 Rac-
coons
CRENSHAW
MONROE
1 Bat
1 Cat
HENRY
6 Raccoons
1 Fox
COFFEE
DALE
8 Raccoons
CONECUH
COVINGTON
3 Raccoons
HOUSTON
2 Raccoons
1 Dog
1 Cat
WASHINGTON
ESCAMBIA
1 Raccoon
1 Dog
2 Raccoons
GENEVA
7 Raccoons
MOBILE
BALDWIN
1 Bat

TOTAL POSITIVE RABIES 94
* 1 Skunk tested by Tennessee State Health Department
**1 Bat tested by Georgia State Health Department

TABLE 3-5
COMBINED CLINICAL LABORATORIES
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC			SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology			19,462			38	19,417
STS	VDRL-Routine WR	3,197	194,906	6,902	183,065	1,698	205,214
	VDRL-Premarital WR	288	32,980	274	32,244	198	33,408
	VDRL-Spinal Fluid		1,768	1	1,727	40	1,729
	MHA-TP						
Agar Gel			3,636	224	3,382	24	3,778
Bacterial Agglutination			97	6	134		148
CF	Viral		2,714				13,750
	Fungal		1,818				7,272
HI	Rubella-Influenza-SLE-Dengue		17,444				17,858
IHA	Amebiasis		387	4			387
IFA	FTA-ABS B	81	3,790	2,320	1,333	56	3,994
	Toxoplasmosis >256	172	1,106	374	717	15	1,150
	Legionnaires		113				119
META-BOLIC	Hemaglobinopathies		57,937				65,347
	PKU-Guthrie		99,846				99,846
	PKU-Chromatography		178				557
	CSF-Total Protein		1,768	233	378	1,157	611
	Hypothyroid		98,966			987	135,794
Rh Factor			13,014			74	17,599
BACTERIOLOGY							
Enteric			2,180	871	1,256	53	3,048
Sanitary-Dairy			31,657	4,796	22,540	461	99,806
Potable Water			79,738	6,896	71,904	3,752	157,624
Fluorine			520	1	515	4	520
Bay Water			137	22	115		274
Shellfish			195	59	136		780
Food Bacteriology			174	12	161	1	310
General Bacteriology			1,060	872	80	104	28,207
Staphylococcus			37	23	14		61
Diphtheria			9		9		9
Bordetella pertussis-Culture			9		9		9
Legionella			18	2	16		380
GC Culture—PPNG Screening		5,945	339,514	22,241	311,177	6,026	370,308
Parasitology			14,079	1,834	11,345	900	13,332
Rabies-FA			2,585	92	2,416	77	2,534
Bordetella pertussis-FA			23	2	20	1	22
TB-MYCOLOGY - Microscopic Smears			30,570	1,061	29,043	466	30,104
TB	Referred Cultures		828				
	Total Cultures	30,932		2,215	26,441	1,501	163,589
Mycology			4,807				43,285
CHECK SPECIMENS			729				2,686
TOTALS			1,060,799	55,075	700,177	17,633	1,544,866

TABLE 3-6
MONTGOMERY CLINICAL LABORATORY
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC			SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology			19,462			38	19,417
STS	VDRL-Routine WR	1,982	68,998	3,691	62,366	959	74,560
	VDRL-Premarital WR	147	8,646	121	8,334	68	8,846
	VDRL-Spinal Fluid		1,768	1	1,727	40	1,729
	MHA-TP						
Agar Gel			3,636	224	3,382	24	3,778
Bacterial Agglutination			97	6	134		148
CF	Viral		2,714				13,750
	Fungal		1,818				7,272
HI	Rubella-Influenza-SLE-Dengue		17,444				17,858
IHA	Amebiasis		387	4			387
IFA	FTA-ABS B	81	3,790	2,320	1,333	56	3,994
	Toxoplasmosis >256	172	1,106	374	717	15	1,150
	Legionnaires		113				119
META-BOLIC	Hemaglobinopathies		57,937				65,347
	PKU-Guthrie		99,846				99,846
	PKU-Chromatography		178				557
	CSF-Total Protein		1,768	233	378	1,157	611
	Hypothyroid		98,966			987	135,794
Rh Factor							
BACTERIOLOGY							
Enteric			2,180	871	1,256	53	3,048
Sanitary-Dairy			6,192	771	5,394	27	20,911
Potable Water			17,718	1,189	15,803	683	35,608
Fluorine							
Bay Water							
Shellfish							
Food Bacteriology			174	12	161	1	310
General Bacteriology			1,060	872	80	104	28,207
Staphylococcus			37	23	14		61
Diphtheria			9		9		9
Bordetella pertussis-Culture			9		9		9
Legionella			18	2	16		380
GC Culture—PPNG Screening		1,939	78,608	6,369	70,562	1,677	87,422
Parasitology			14,079	1,834	11,345	900	13,332
Rabies-FA			939	45	876	18	958
Bordetella pertussis-FA			23	2	20	1	22
TB-MYCOLOGY - Microscopic Smears			30,570	1,061	29,043	466	30,104
TB	Referred Cultures		828				
	Total Cultures	30,932		2,215	26,441	1,501	163,589
Mycology			4,807				43,285
CHECK SPECIMENS			344				1,400
TOTALS			546,269	24,622	239,400	8,775	883,818

TABLE 3-7
BIRMINGHAM CLINICAL LABORATORY
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC			SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology							
STS	VDRL-Routine WR	662	58,292	1,172	56,103	355	60,567
	VDRL-Premarital WR	96	16,310	90	16,061	63	16,445
	VDRL-Spinal Fluid						
	MHA-TP						
Agar Gel							
Bacterial Agglutination							
CF	Viral						
	Fungal						
HI	Rubella-Influenza-SLE-Dengue						
IHA	Amebiasis						
IFA	FTA-ABS	B					
	Toxoplasmosis	>256					
	Legionnaires						
META-BOLIC	Hemaglobinopathies						
	PKU-Guthrie						
	PKU-Chromatography						
	CSF-Total Protein						
	Hypothyroid						
Rh Factor							
BACTERIOLOGY							
Enteric							
Sanitary-Dairy			12,616	1,809	10,427	380	38,696
Potable Water			25,633	2,913	21,041	1,679	50,141
Fluorine			520	1	515	4	520
Bay Water							
Shellfish							
Food Bacteriology							
General Bacteriology							
Staphylococcus							
Diphtheria							
Bordetella pertussis-Culture							
Legionella							
GC Culture—PPNG Screening		2,237	170,556	9,805	158,292	2,459	184,008
Parasitology							
Rabies-FA			770	11	734	25	734
Bordetella pertussis-FA							
TB-MYCOLOGY							
TB	Microscopic Smears						
	Total Cultures						
Mycology							
CHECK SPECIMENS			156				349
TOTALS			284,853	16,559	263,173	4,965	351,460

TABLE 3-8
DECATUR CLINICAL LABORATORY
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC			SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology							
STS	VDRL-Routine WR	319	33,181	436	32,157	225	33,671
	VDRL-Premarital WR	19	1,583	10	1,538	16	1,596
	VDRL-Spinal Fluid						
	MHA-TP						
Agar Gel							
Bacterial Agglutination							
CF	Viral						
	Fungal						
HI	Rubella-Influenza-SLE-Dengue						
IHA	Amebiasis						
IFA	FTA-ABS B						
	Toxoplasmosis >256						
	Legionnaires						
META-BOLIC	Hemaglobinopathies						
	PKU-Guthrie						
	PKU-Chromatography						
	CSF-Total Protein						
	Hypothyroid						
Rh Factor			13,014			74	17,599
BACTERIOLOGY							
Enteric							
Sanitary-Dairy			6,672	529	2,242	41	20,765
Potable Water			16,496	1,702	16,875	769	32,027
Fluorine							
Bay Water							
Shellfish							
Food Bacteriology							
General Bacteriology							
Staphylococcus							
Diphtheria							
Bordetella pertussis-Culture							
Legionella							
GC Culture—PPNG Screening		552	24,737	1,877	22,235	615	26,850
Parasitology							
Rabies-FA			639	33	575	31	608
Bordetella pertussis-FA							
TB-MYCOLOGY							
TB	Microscopic Smears						
	Total Cultures						
Mycology							
CHECK SPECIMENS			88				363
TOTALS			96,410	4,925	75,622	1,771	133,479

TABLE 3-9
DOTHAN CLINICAL LABORATORY
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC		SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology						
STS	VDRL-Routine WR					
	VDRL-Premarital WR					
	VDRL-Spinal Fluid					
	MHA-TP					
Agar Gel						
Bacterial Agglutination						
CF	Viral					
	Fungal					
HI	Rubella-Influenza-SLE-Dengue					
IHA	Amebiasis					
IFA	FTA-ABS B					
	Toxoplasmosis >256					
	Legionnaires					
META-BOLIC	Hemaglobinopathies					
	PKU-Guthrie					
	PKU-Chromatography					
	CSF-Total Protein					
	Hypothyroid					
Rh Factor						
BACTERIOLOGY						
Enteric						
Sanitary-Dairy		2,373	805	1,563	5	8,251
Potable Water		6,496	239	6,047	217	12,749
Fluorine						
Bay Water						
Shellfish						
Food Bacteriology						
General Bacteriology						
Staphylococcus						
Diphtheria						
Bordetella pertussis-Culture						
Legionella						
GC Culture--PPNG Screening 107		9,838	686	8,813	279	10,866
Parasitology						
Rabies-FA						
Bordetella pertussis-FA						
TB-MYCOLOGY						
TB	Microscopic Smears					
	Total Cultures					
Mycology						
CHECK SPECIMENS		37				76
TOTALS		18,744	1,730	16,423	501	31,942

TABLE 3-10
MOBILE CLINICAL LABORATORY
FISCAL YEAR 1981

SEROLOGY-CYTOLOGY-METABOLIC			SPECIMENS	POSITIVES	NEGATIVES	UNSAT.	EXAMS
Cytology							
STS	VDRL-Routine WR	234	34,435	1,603	32,439	159	36,416
	VDRL-Premarital WR	26	6,441	53	6,311	51	6,521
	VDRL-Spinal Fluid						
	MHA-TP						
Agar Gel							
Bacterial Agglutination							
CF	Viral						
	Fungal						
HI	Rubella-Influenza-SLE-Dengue						
IHA	Amebiasis						
IFA	FTA-ABS	B					
	Toxoplasmosis	>256					
	Legionnaires						
META-BOLIC	Hemaglobinopathies						
	PKU-Guthrie						
	PKU-Chromatography						
	CSF-Total Protein						
	Hypothyroid						
Rh Factor							
BACTERIOLOGY							
Enteric							
Sanitary-Dairy			3,804	882	2,914	8	11,183
Potable Water			13,395	853	12,138	404	27,099
Fluorine							
Bay Water			137	22	115		274
Shellfish			195	59	136		780
Food Bacteriology							
General Bacteriology							
Staphylococcus							
Diphtheria							
Bordetella pertussis-Culture							
Legionella							
GC Culture—PPNG Screening		1,110	55,775	3,504	51,275	996	61,162
Parasitology							
Rabies-FA			237	3	231	3	234
Bordetella pertussis-FA							
TB-MYCOLOGY							
TB	Microscopic Smears						
	Total Cultures						
Mycology							
CHECK SPECIMENS			104				498
TOTALS			114,523	7,239	105,559	1,621	144,167

BUREAU OF DENTAL HEALTH

BUREAU OF DENTAL HEALTH

Division of Dental Health Education and Prevention

School Health Programs—The preservation of healthy smiles was a major objective of the Alabama Smile Keeper (ASK) Program as it began its eighth year. During 1981, 28,429 persons received comprehensive dental health education through this facet of the ASK program. Elementary teachers; headstart personnel; elementary, vocational education and college students; dental assistant trainees; camp participants; and others were taught basic skills and given factual information for preventing dental disease.

During 1981 five public school systems received the education program for the first time while nine systems were second or third time recipients. Ninety-nine of the 127 Alabama public school systems have now received the ASK education program at least once. Also several private systems have received assistance. The remaining eligible school systems have been contacted and will receive top priority in future program plans.

Local involvement was once again a key factor contributing to the program's success. Local dentists and their staffs, dental wives, school nurses, vocational education students, and other volunteers combined efforts to create an enthusiastic team. These teams worked in all parts of the state distributing toothbrushes, dental floss, disclosing tablets, parent literature, and teacher and student materials with one unified goal—education for the prevention of oral disease.

During February 1981 National Children's Dental Health Week became National Children's Dental Health Month. The Alabama Denal Auxiliary received over 48,000 booklets from the Bureau of Dental Health to aid in teaching preventive facts to as many Alabamians as possible. These materials were divided among eight Alabama dental districts and were distributed to schools, at health fairs, in shopping malls and in other public areas.

After schools closed for the summer, dental education consultants assisted with dental prophylaxis procedures and patient education on the Smilemobile. This dental unit was stationed at the Montgomery County Health Department for several months and rendered dental services to needy persons. Also during this time, consultants visited summer camps and bureau staff participated in a continuing education course offered at the University of Alabama in Birmingham. Nearly 340 underprivileged children received oral hygiene supplies and instruction at Camp Exchange, and 50 students were enrolled in the dental health workshop at UAB.

"Tooth Flossophy with Charlie Brown" was added to the Film and Resource Center of the Health Department. This

and other films were an asset as teachers presented dental health units in classrooms. Feedback on quality and quantity of available films has been positive.

Other teaching aids were developed during 1981. The Alabama Dental Auxiliary funded artwork for a new "Go for Healthy Smiles" poster, and the Alabama Dental Foundation purchased overhead transparency film and viewing equipment. Transparency sets were developed to be used by classroom teachers and to complement current materials used during ASK workshops.

Several thousand additional pamphlets, posters and other informative literature were distributed during the past year. Even though large quantity distribution was limited to ASK school programs, complimentary copies were available for persons requesting assistance.

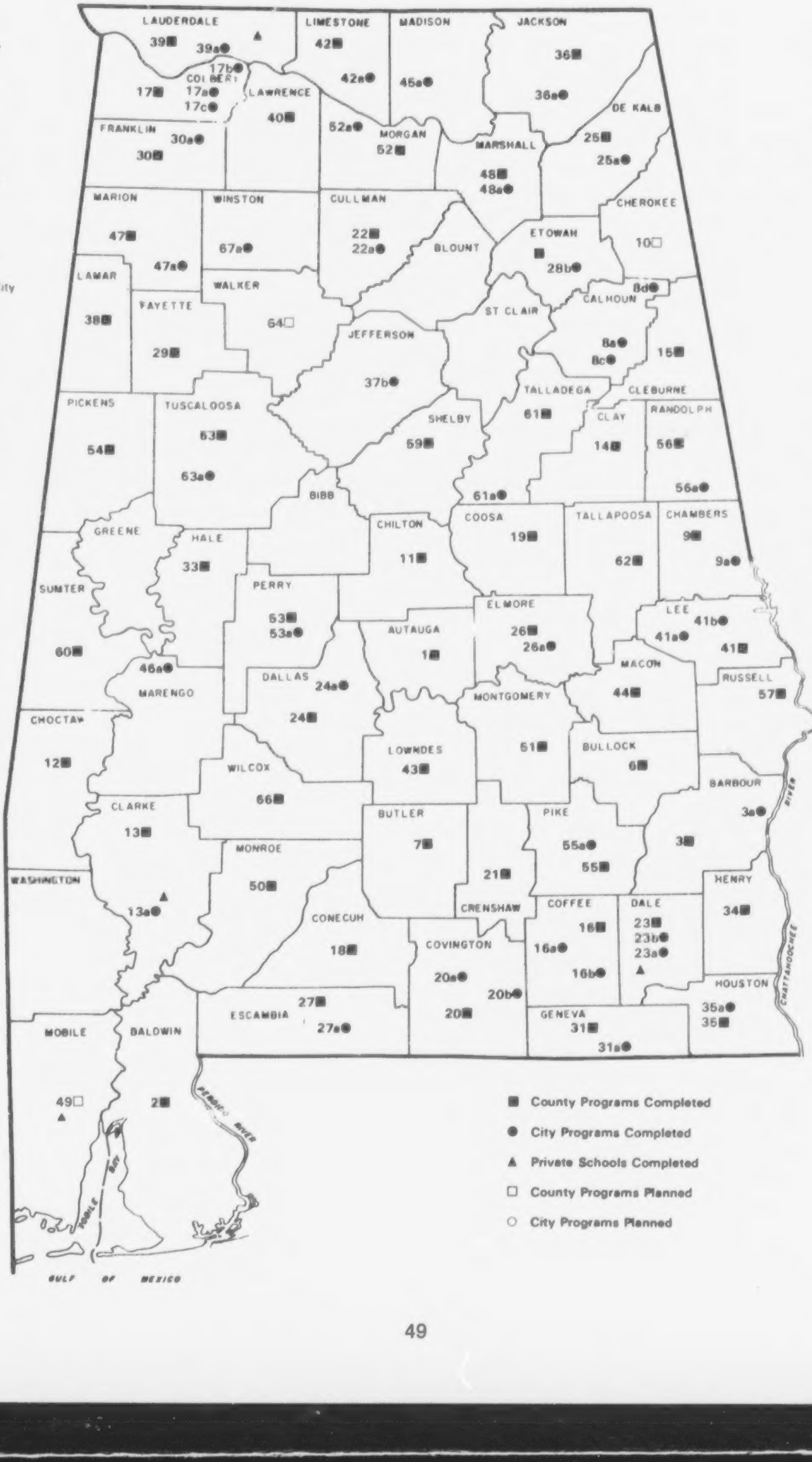
School systems or groups participating in the ASK education program during 1981 are listed in Table 4-1 cumulative figures for the preceding seven years of ASK activity are also shown.

TABLE 4-1
ALABAMA SMILE KEEPER PROGRAM RECIPIENTS

	Students	Teachers
Public Health Area I		
Colbert County	2,674	104
Cullman City	1,257	45
Lauderdale County	4,622	170
Guntersville City	914	35
Decatur City	1,238	54
Haleyville City	1,042	39
TOTAL	11,747	447
Public Health Area III		
UAB Workshop (Jefferson Co.)	50	
TOTAL	50	
Public Health Area IV		
Calhoun County	1,088	34
Etowah County	662	24
TOTAL	1,750	58
Public Health Area V		
Elmore County-Camp Exchange	337	7
Houston County	3,676	116
Butler County	1,610	60
TOTAL	5,623	183
Public Health Area VI		
Baldwin County	2,543	81
Marion City	507	18
Sumter County	1,927	60
Monroe County	3,300	135
TOTAL	8,277	294
1981 TOTAL	27,447	982
1974-1980 TOTAL	236,775	9,711
CUMULATIVE TOTAL	264,222	10,693

City, county and private schools who have received, or are scheduled to receive, the ASK Dental Health Education program are designated on Chart 4-1.

CHART 4-1
ASK TEACHER-TRAINING WORKSHOPS PRESENTED TO ALABAMA COUNTY AND CITY SCHOOL SYSTEMS


LAUDERDALE
39■
39a●
▲
LIMESTONE
42■
42a●
MADISON
45a●
JACKSON
36■
36a●
17b●
COLBERT
17■
17a●
17c●
LAWRENCE
40■
FRANKLIN
30a●
30■
52a●
MORGAN
52■
MARSHALL
48■
48a●
DE KALB
25■
25a●
MARION
47■
47a●
WINSTON
67a●
CULLMAN
22■
22a●
BLOUNT
ETOWAH
■
28b●
CHEROKEE
10□
LAMAR
38■
WALKER
64□
FAYETTE
29■
8d●
CALHOUN
ST CLAIR
8a●
8c●
15■
JEFFERSON
37b●
TALLADEGA
61■
CLEBURNE
PICKENS
54■
TUSCALOOSA
63■
63a●
SHELBY
59■
CLAY
14■
RANDOLPH
56■
56a●
61a●
BIBB
GREENE
HALE
33■
CHILTON
11■
COOSA
19■
TALLAPOOSA
62■
CHAMBERS
9■
9a●
SUMTER
60■
PERRY
63■
53a●
ELMORE
26■
26a●
AUTAUGA
1■
LEE
41b●
41a●
41■
46a●
MARENGO
DALLAS
24a●
24■
MACON
44■
RUSSELL
57■
CHOCTAW
12■
MONTGOMERY
51■
LOWNDES
43■
BULLOCK
6■
WILCOX
66■
BARBOUR
3a●
3■
RIVER
CLARKE
13■
13a●
▲
BUTLER
7■
PIKE
55a●
55■
MONROE
50■
21■
CRENSHAW
WASHINGTON
CONECUH
18■
COFFEE
16■
16a●
16b●
DALE
23■
23b●
23a●
▲
HENRY
34■
COVINGTON
20a●
20b●
20■
ESCAMBIA
27■
27a●
HOUSTON
35a●
35■
CHATTAHOOCHEE
GENEVA
31■
31a●
MOBILE
49□
▲
BALDWIN
2■
PERDIDO RIVER
MOBILE BAY
GULF OF MEXICO
■ County Programs Completed
● City Programs Completed
▲ Private Schools Completed
□ County Programs Planned
○ City Programs Planned

SCHOOL SYSTEM

1 Autauga County
2 Baldwin County
3 Barbour County
  a Eufaula City
4 Bibb County
5 Blount County
  a Oneonta City
6 Bullock County
7 Butler County
8 Calhoun County
  a Anniston City
  b Jacksonville City
  c Oxford City
  d Piedmont City
9 Chambers County
  a Lanett City
10 Cherokee County
11 Chilton County
12 Choctaw County
13 Clarke County
  a Thomasville City
14 Clay County
15 Cleburne County
16 Coffee County
  a Elba City
  b Enterprise City
17 Colbert County
  a Muscle Shoals City
  b Sheffield City
  c Tuscumbia City
18 Conecuh County
19 Coosa County
20 Covington County
  a Andalusia City
  b Florala City
  c Opp City
21 Crenshaw County
22 Cullman County
  a Cullman City
23 Dale County
  a Daleville City
  b Ozark City
24 Dallas County
  a Selma City
25 DeKalb County
  a Fort Payne City
26 Elmore County
  a Tallassee City
27 Escambia County
  a Brewton City
28 Etowah County
  a Attalla City
  b Gadsden City
29 Fayette County
30 Franklin County
  a Russellville City
31 Geneva County
  a Geneva City
32 Greene County
33 Hale County
34 Henry County
35 Houston County
  a Dothan City
36 Jackson County
  a Scottsboro City
37 Jefferson County
  a Bessemer City
  b Birmingham City
  c Fairfield City
  d Homewood City
  e Midfield City
  f Mt. Brook City
  g Tarrant City
  h Vestavia Hills City
38 Lamar County
39 Lauderdale County
  a Florence City
40 Lawrence County
41 Lee County
  a Auburn City
  b Opelika City
42 Limestone County
  a Athens City
43 Lowndes County
44 Macon County
45 Madison County
  a Huntsville City
46 Marengo County
  a Demopolis City
  b Linden City
47 Marion County
  a Winfield City
48 Marshall County
  a Guntersville City
49 Mobile County
50 Monroe County
51 Montgomery County
52 Morgan County
  a Decatur City
  b Hartselle City
53 Perry County
  a Marion City
54 Pickens County
55 Pike County
  a Troy City
56 Randolph County
  a Roanoke City
57 Russell County
  a Phenix City
58 St. Clair County
59 Shelby County
60 Sumter County
61 Talladega County
  a Sylacauga City
  b Talladega City
62 Tallapoosa County
  a Alexander City
63 Tuscaloosa County
  a Tuscaloosa City
64 Walker County
  a Carbon Hill City
  b Jasper City
65 Washington County
66 Wilcox County
67 Winston County
  a Haleyville City

Fluoridation—The number of Alabamians receiving fluoridated water increased dramatically during 1981. Nine water systems began fluoridating their water. Table 4-2 lists them.

TABLE 4-2
SYSTEMS BEGINNING FLUORIDATION

Public Health Area II		7,086
Greensboro	3,786	
Vernon	3,300	
Public Health Area III		618,714
Birmingham	618,714	
Bessemer	78,090	
Pleasant Grove	8,094	
Brookside	3,300	
Graysville	2,952	
West Jefferson	2,874	
Mulga	7,500	
Public Health Area IV		8,169
Clay County	4,686	
Ashland	1,902	
Millerville	435	
Lineville	2,349	
Heflin	3,483	
Edwardsville	390	
Public Health Area V		25,125
Daleville	2,100	
Wetumpka	4,800	
Prattville	18,225	
Public Health Area VI		12,000
Fairhope	12,000	
STATE TOTAL		671,094

With the addition of these new systems, approximately 2,433,000 people are receiving adjusted fluoridated water and approximately 80,000 are receiving naturally fluoridated water for a total of over 2.5 million Alabamians receiving the benefits of fluoridated water.

During 1981 the city councils of Daleville, Carrollton, Centre, Fairhope, Grand Bay, Holtville, Irondale, Pine Hill and Sylacauga passed ordinances endorsing the fluoridation of their public water supplies. Daleville and Fairhope began fluoridating almost immediately after the passage of their ordinances. Pine Hill and Sylacauga should be fluoridating before September 1982, and the remaining systems should begin as soon as they meet the requirements of the State Health Department and get their equipment installed.

The bureau has set a goal of 20 more cities adding fluoride to their water in 1982. If this goal is reached, approximately 154,000 more citizens will be served by fluoridated water. Some cities have already been contacted, and it appears that they will pass ordinances in the near future.

Fluoride Mouthrinse Program—Five years ago the principal objective of the Bureau of Dental Health was to develop an alternative caries preventive program that would be effective for children in the five to twelve year old age group who live in fluoride-deficient areas of Alabama. After reviewing many preventive approaches, the bureau chose a school based fluoride mouthrinse program. According to research studies, fluoride mouthrinse programs have been shown to prevent the incidence of dental caries by as much as 35 percent.

Fluoride mouthrinsing is well accepted by school childen, parents and school personnel because it is safe, simple and effective. Once each week, under supervision, the children in kindergarten through sixth grade rinse for one minute with 0.2 percent solution of neutral sodium fluoride.

As Table 4-3 and Graph 4-1 illustrate Alabama's fluoride mouthrinse program has increased substantially in number of participants each year since its inception five years ago.

TABLE 4-3
PARTICIPATION IN FLUORIDE MOUTHRINSE PROGRAM

Year	Teachers	Children	Participants	Increase
1977	26	500	526	—
1978	90	2,300	2,390	+354%
1979	387	8,908	9,295	+289%
1980	1,307	29,400	30,707	+230%
1981	2,575	57,718	60,293	+96%

GRAPH 4-1
GROWTH OF FLUORIDE MOUTHRINSE PROGRAM

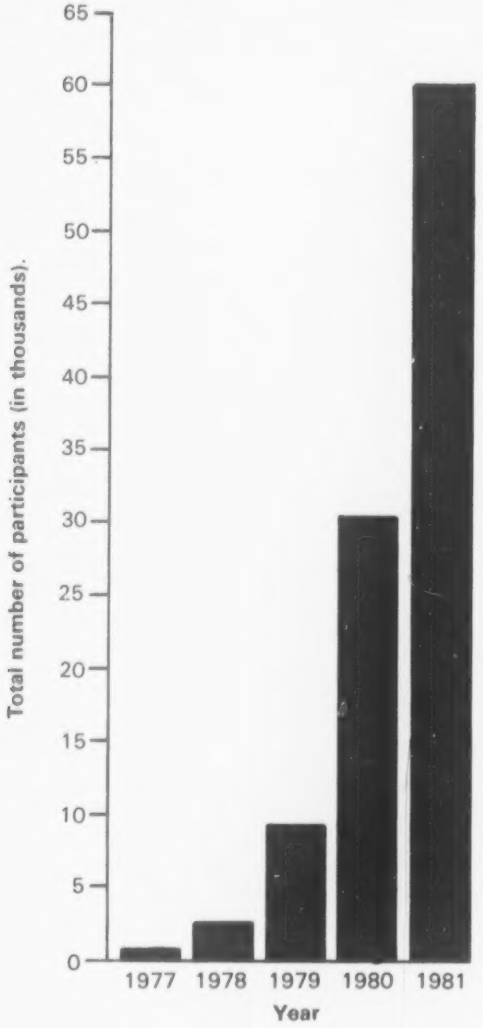


TABLE 4-4
FLUORIDE MOUTHRINSE PROGRAM

County or City	Students	Teachers
Public Health Area I		
Lauderdale County	2,347	110
Lawrence County	715	35
Marion County	2,741	130
TOTAL	5,803	275
Public Health Area II		
Hale County	579	31
TOTAL	579	31
Public Health Area III		
Blount County	909	42
Chilton County	3,200	106
St. Clair County	175	15
Walker County	2,104	84
Carbon Hill City	509	18
TOTAL	6,897	265
Public Health Area IV		
Chambers County	591	29
Cherokee County	1,751	75
Cleburne County	1,400	60
Coosa County	1,291	65
Randolph County	1,555	76
Roanoke City	580	20
Sylacauga City (Talladega)	1,480	50
TOTAL	8,648	375

At the end of 1981, 60,293 children and teachers in 32 school systems in Alabama were voluntary participants in the program. The growth from the 30,707 participants in 1980 represents an increase of 96 percent.

The increase in statewide participation indicates the growing interest of parents and educators in providing a caries preventive program for their children. Table 4-4 gives a breakdown of participants in each public health area. In addition to success in number of participants, the fluoride mouthrinse program is one of the most effective dental health measures available.

TABLE 4-4 (Continued)
FLUORIDE MOUTHRINSE PROGRAM

County or City	Students	Teachers
Public Health Area V		
Barbour County	1,391	75
Eufaula Adolescent Center	110	10
Bullock County	1,259	55
Butler County	1,928	107
Crenshaw County	951	37
Elmore County	1,191	50
Houston County	3,618	130
Lowndes County	1,576	68
Pike County	763	29
Pike Headstart	300	25
Russell County	1,509	65
TOTAL	14,596	651
Public Health Area VI		
Baldwin County	3,009	121
Christ The King Catholic Schools	706	31
Choctaw County	1,809	70
Clarke County	2,991	125
Thomasville City	875	55
Conecuh County	1,709	65
Escambia County	3,340	183
Brewton City	925	35
Monroe County	1,752	80
Perry County	1,109	80
Marion City	479	32
Washington County	2,491	101
TOTAL	21,195	978
STATE TOTAL	57,718	2,575

Sealant Program—The Bureau of Dental Health has implemented a preventive dentistry program using adhesive sealants, through a Dental Demonstration Project Grant from the Bureau of Maternal and Child Health.

Portable dental chairs, lights, handpieces, suction units and a compressor were purchased, enabling this program to be taken to schools. This equipment is used for initial examinations and screening, treatment, and consequent examinations to monitor the program.

Pike County children in Brundidge elemementary schools were the first to receive sealants. Dentists examined 249 students in grades 2, 3, 6, 7 and 8. Their initial findings are listed in Table 4-5. Of these children, 125 were eligible for sealants. The 780 teeth which were sealed will be checked during the follow-up examination to determine the retention percentage of the sealants.

Initial examinations were conducted in Chambers County for a sealant program. In Lanett 100 elementary students in grades 2, 3, 6 and 7 were examined. The 75 students eligible for the program had 518 teeth on which sealant was applied. Table 4-6 gives details of the findings.

Schools desiring the program must be located in an area that qualifies for a procedure of this nature. The fluoridation level and socioeconomic status determines the eligibility of an area. Dentists examine, screen and select the children who need sealants.

Accurate records are being maintained so that data on cost effectiveness and retentiveness of sealants can be evaluated. Preliminary indications from statistics gathered in Alabama show sealants to be a safe, effective method of occlusal caries reduction in children.

Dental Health Education for the Handicapped—In April of 1981 the Bureau of Dental Health, in cooperation with the Crippled Children and Rehabilitation Services, presented a dental health education program at the Crippled Children Services Center in Birmingham. Health care professionals and teachers who work with handicapped children on a daily basis attended this program which was designed to make them more aware of the varied oral health problems of handicapped children.

Poor oral health is a menacing problem of the handicapped population. With health care professionals being more aware of this problem, perhaps some of the suffering of the handicapped can be alleviated.

Another endeavor to deal with the oral health problems of the handicapped is a program at the Father Purcell Memorial Home for Exceptional Children in Montgomery. Staff members will be trained in oral hygiene techniques for use with the severely handicapped child. In Montgomery 379 handicapped are being served by the program.

Each child's physical and mental capabilities will be evaluated. Then an individualized daily oral hygiene program will be developed by consultants with the Bureau of Dental Health. The children will be monitored, and daily plaque scores will be recorded so that at the end of one year each child can be re-evaluated. If the child's oral hygiene has not improved markedly, changes in the regimen will be recommended. A one-on-one training session for staff members who provide this care will also be recommended.

For many years the dental health problems of the handicapped have been neglected. The Bureau of Dental Health is utilizing education and training to improve the oral health of Alabama's handicapped population.

Nursing Home Program—During 1981 the dental health education program for nursing homes has been requested much more frequently. As administrators of extended care facilities become more aware of the oral health needs of the elderly population, they realize that it is imperative for their staffs to have dental health education and oral hygiene training.

TABLE 4-5
BRUNDIDGE DENTAL SURVEY

Characteristics	Number of Students	DMF*		def‡		Sealants	
		Number	Rate	Number	Rate	Number of Eligibles	Number of Teeth
Students on naturally fluoridated city water all their lives.	95	274	2.58	143	1.34	55	351
Students not on city water but living in Brundidge all their lives.	25	121	4.8	60	2.4	11	57
Students on city water now & having lived in other fluoridated communities.	31	94	3.03	22	.71	19	131
Students not on city water & having lived in other non-fluoridated communities.	93	550	6.04	123	1.35	38	233
Students living in Troy all their lives (artificially fluoridated).	5	35	7.0	4	.8	2	8

*Permanent teeth which are decayed, missing or filled
‡Deciduous teeth indicated for extraction or filled

TABEL 4-6
LANETT DENTAL SURVEY

Characteristics	Number of Students	DMF*		def‡		Sealants	
		Number	Rate	Number	Rate	Number of Eligibles	Number of Teeth
Students having lived all their lives in Lanett.	59	145	2.45	144	2.44	45	322
Students having lived in nonfluoridated areas.	23	80	3.47	74	3.21	15	113
Students having lived in Lanett or fluoridated communities all their lives.	18	37	2.05	20	1.11	15	83

*Permanent teeth which are decayed, missing or filled
‡Deciduous teeth indicated for extraction or filled

In-service sessions are designed to cover all aspects of delivering oral hygiene care to the long-term patient, both ambulatory and bedridden. Nursing home staffs learned about helpful aids and special brushing techniques which can be used for the stroke and arthritic patient.

Statistics show that the elderly have a high incidence of oral cancer; therefore a lecture/slide session on cancerous oral lesions has been included in the program. Each slide depicts a particular type of oral lesion and each type is discussed in detail.

Staff members are encouraged to give patients soft tissue examinations quarterly and to report any tissue which appears to be abnormal to their dental advisor for further treatment or referral.

Because nursing home staff must have an appreciation for their own dental health and good oral hygiene, a laboratory plaque control session is conducted with them. They are given complete instruction on proper brushing and flossing techniques to be used for themselves and their patients.

During the past year ten programs have been presented to a total of 305 nursing home staff members, and 700 patients have been reached by the program.

During 1982 expansion and improvement of the nursing home program is planned so that the oral health problems of more elderly Alabamians can be alleviated.

Division of Dental Services

During 1981 the Bureau of Dental Health continued its efforts toward providing dental services in 20 county health departments and in the mobile dental unit. With the support and the consultation the Division of Dental Services gave these county dental operations, they continued to reach sizeable numbers of indigent and Medicaid eligibles although funding has not increased in several years.

Due to improvements and additions to the mobile dental unit, a complete range of preventive and treatment services are available. Site locations chosen for the mobile unit have been selected in coordination with dental health education programs. The Smilemobile was located at the Montgomery County Health Department during August, September, and October and provided a variety of restorative services to school age children.

Two full-time clinical dentists provided most of the services of the division. One dentist was assigned to the three-county area of Bullock, Lee and Macon and worked in clinics at these sites. The other dentist was responsible for the schedule and operation of the mobile unit. In addition 19 other dentists were employed on a part-time basis. They maintained their private practice but devoted a portion of their time to public health dentistry. They care for those who would be unable otherwise to afford treatment in a private office.

Dental services in clinics and the mobile unit were comprehensive; however the major emphasis has always been prevention of dental disease. The patient is taught the importance of maintaining good oral health to avoid the ravages of dental neglect. Fluoride treatments, prophylaxis, patient education, nutritional counseling and dental sealants were emphasized.

In the county clinics, which are primarily supported by the Bureau of Dental Health, of the 5,058 patients 1,500 children had their dental work completed.

Jefferson, Mobile, Tuscaloosa and the Northwest Alabama Regional Health Department have programs which are well established. The Division of Dental Services provided financial support and administrative assistance as it was requested. These larger programs will receive support from the bureau as long as resources permit. To prevent costly duplication of planning and services, the bueau will act as a liaison between the large, well-established programs and the smaller developing ones.

Mobile Dental Health Unit—The Chambers County Health Committee, which was formed in March of 1981, zeroed in on dental problems. The committee settled on dentistry because a study conducted in 1978-79 showed that 48 percent of the children in grades 1 through 6 in Chambers County had dental problems. Through discussion of the committee, local dentists and the Bureau of Dental Health, it was decided that prevention was better than trying to repair the damage already done.

The committee, with the support of the superintendents of Lanett and of Chambers County schools, secured the services of the Mobile Dental Health Unit van. The van, emblazoned with the state bureau's slogan "Alabama Smile Keeper" (ASK), contains two dental chairs and equipment for most dental work.

The Chambers County Comprehensive Dental Program started with a treatment phase at Shawmut Elementary School. Four other elementary schools in the vicinity participated in the program. Services provided during the five-week program were:

Examinations	92
Encounters	172
Patient Education	202
X-rays	13
Prophylaxis	80
Topical Fluorides	29
Sealants	480
Amalgam Surfaces	147
Compositives	11
Extractions	10
Completions	80

Other programs coordinated through the mobile unit were:

1. Education workshop at Huguley Elementary School.
2. Workshop for Valley Haven School for the Handicapped.
3. Dental health programs for the four nursing homes in Chambers County.
4. Fluoridation and mouthrinse.
5. Sealants.
6. Removal of sweets from the schools.

The mobile unit will move to LaFayette's East Side School to start the next phase of the total program.

ENVIRONMENTAL HEALTH ADMINISTRATION

ENVIRONMENTAL HEALTH ADMINISTRATION

Environmental Health Laboratory

The Environmental Health Laboratory continued to provide chemical analytical support to the divisions of the Environmental Health Administration, the Alabama Water Improvement Commission, the Alabama Air Pollution Control Commission and other agencies as needed.

During 1981 the Environmental Laboratory adopted the method of measuring its work load promoted by the Centers for Disease Control. With demands for laboratory services constantly increasing and resources becoming more difficult to secure, it was decided this method would be effective in measuring the laboratory's productivity.

The unit of measure in this system is the Work Time Unit (WTU) of the number of minutes required to perform a particular task. Costs for each analysis are based on this time factor rather than on an average which would make a simple analysis cost the same as a complex one. Table 5-1 summarizes the production of the Environmental Laboratory in terms of the number of analyses and the analytical time consumed by each agency requesting service.

TABLE 5-1
ENVIRONMENTAL HEALTH LABORATORY WORK LOAD

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Air Pollution													
Number of Samples	10	10	6	4	2	4	5	8	5	4	4	6	68
Number of Determinations	24	30	18	12	6	12	15	24	15	12	12	18	198
Total Work Time Units	270	450	648	180	90	228	225	648	405	300	300	450	4,194
Public Water Supplies													
Number of Samples	220	207	190	239	217	196	141	185	187	116	126	110	2,134
Number of Determinations	720	1,594	997	1,285	1,127	920	670	1,031	983	650	680	625	11,282
Total Work Time Units	15,012	31,378	18,803	28,135	20,613	15,150	13,645	16,612	19,415	9,620	12,340	8,708	209,431
Radiological Health													
Number of Samples	112	28	28	65	42	31	75	92	40	63	25	73	674
Number of Determinations	183	49	48	156	93	85	150	139	87	254	25	110	1,379
Total Work Time Units	9,173	1,416	703	8,120	2,408	2,684	8,066	1,286	2,452	16,300	400	1,042	54,050
Water Improvement Commission													
Number of Samples	311	263	325	223	344	380	438	342	346	456	234	232	3,894
Number of Determinations	818	750	1,018	616	1,207	1,204	1,506	1,032	1,468	1,470	752	499	12,340
Total Work Time Units	13,710	9,275	16,547	6,306	17,552	16,338	17,084	11,853	32,069	28,158	8,209	7,315	184,416
Solid & Hazardous Waste													
Number of Samples	112	188	183	172	349	137	216	190	78	99	143	147	2,014
Number of Determinations	914	1,709	1,783	1,614	1,509	918	1,660	1,924	568	625	330	635	14,189
Total Work Time Units	12,206	36,769	41,895	27,651	46,228	15,046	33,932	29,315	7,645	8,834	7,066	15,106	281,693
TOTAL SAMPLES	765	696	732	703	954	748	875	817	656	738	532	568	8,784
TOTAL DETERMINATIONS	2,659	4,132	3,864	3,683	3,942	3,139	4,001	4,150	3,121	3,011	1,799	1,887	39,388
TOTAL WORK TIME UNITS	50,371	79,288	78,596	70,392	86,891	49,446	72,952	59,714	61,986	63,212	28,315	32,621	733,784

TABLE 5-2
ENVIRONMENTAL HEALTH LABORATORY PARAMETERS

ORGANICS

I Organochlorines
  1 Aldrin
  2 BHC (Lindane)
  3 DDD (o,p', p,p')
  4 DDE (o,p', p,p')
  5 DDT (o,p', p,p')
  6 Chlordane
  7 Heptachlor
  8 Heptachlor Epoxide
  9 Methoxychlor
  10 Mirex
  11 Toxaphene
  12 PCB's (1016, 1254, 1260, 1262, 1248, 1232, 1242, 1221)
  13 Dieldrin
  14 Endrin
  15 2,4-D
  16 2,4,5-TP

II Organophosphates
  1 Diazinon
  2 Methyl Parathion
  3 Ethyl Parathion
  4 Malathion
  5 Ethion
  6 Malathion

III Volatile Organics
  1 Chloroform
  2 Bromoform
  3 Bromodichloromethane
  4 Chlorodibromomethane
  5 1,2 Dichloroethane
  6 1,1,1 Trichloroethane
  7 1,1,2 Trichloroethylene
  8 Carbon tetrachloride
  9 1,1,2,2 Tetrachloroethylene

INORGANICS

Minerals
pH
Alkalinity
Sulfide
Oil and Grease
Chloride
Fluoride
Turbidity
Color
Cyanide
Phenol
Hardness
Total Suspended Solids
Total Dissolved Solids
Total Solids
Total Organic Carbon
Acidity
Specific Conductance
Sulfates
Carbon Dioxide

Nutrients
1 Nitrate–Nitrite
2 Ammonia–Nitrogen
3 Organic–Nitrogen
4 Total Phosphates
5 Ortho–Phosphates

Air
1 Air Sulfates
2 Air Stacks
3 Air Filter Lead

Metals
Al
Ag
Ca
As
Cd
Cr T
Cr VI
Cu
Fe
Mn
Ni
Pb
Zn
Hg
Ba
Se
Na
Mg

Demands
1 Biochemical Oxygen Demand
2 Chemical Oxygen Demand

RADIATION

Gross Alpha
1 Air
2 Water
3 Soil
4 Vegetation

Gross Beta
1 Air
2 Water
3 Soil
4 Vegetation

Gamma
Bi–214
Ba–140
Co–60
Cs–134
Cs–137
Ce–144
I–131
K–40
Ru–106
Th–232
Zn–65
Zr-Nb–95

Liquid Scintillation
Tritium

Specific Alpha
1 Ra–226-228

Specific Beta
1 Sr–89 & 90
  a Milk
  b Water
  c Soil
  d Vegetation

Both state and federal regulations continued to increase the need for laboratory services. This is reflected in the number of samples the laboratory analyzed for toxics for the Division of Solid and Hazardous Waste during 1981. Overall the laboratory's data output was 30 percent greater in 1981 than 1980.

Analytical Capabilities—General laboratory capabilities are listed on Table 5-2. During 1981 an effort was made to expand this capability to include all of the priority pollutants. This effort was not realized because of the increase in the overall work load of the laboratory. However it is expected that this capability will be a reality by mid-summer 1982.

Quality Control—Two approaches were made to measure the quality of the laboratory's data output. One was a duplicate analysis program in which approximately 10 percent of the routine samples were analyzed in duplicate. The second was a spiking program that involved approximately 5 percent of the routine metals and nitrogen series samples. Also known references were analyzed with each group of samples as a check on the validity of the standard curves.

The Environmental Health Administration Laboratory is Alabama's primary chemical laboratory for the analysis of drinking water, and it must analyze the Environmental Protection Agency's performance evaluation samples for all of the parameters listed in the Safe Drinking Water Act. Presently the laboratory is attempting to correct the analytical problems it has had with the analysis of Safe Drinking Water Act samples for Strontium—89-90 and Radium—226-228. It is expected that these deficiencies will be corrected by early spring 1982.

The laboratory's effort in the Safe Drinking Water Act certification program and a quality control summary will appear in a later report.

TABLE 5-3
APPROVED SUBDIVISION PLANS

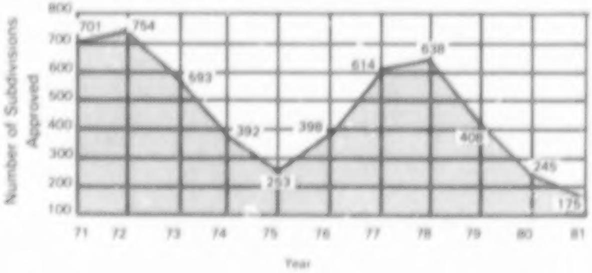
PHA I	
Colbert	5
Cullman	2
Franklin	1
Lauderdale	5
Limestone	3
Madison	8
Marion	1
Marshall	3
Morgan	2
Winston	1
PHA II	
Hale	2
PHA III	
Blount	2
Chilton	1
St. Clair	4
Shelby	7
Walker	3
PHA IV	
Calhoun	11
Cherokee	1
Clay	1
DeKalb	2
Etowah	3
Randolph	1
Talladega	4
Tallapoosa	2
PHA V	
Autauga	6
Barbour	1
Bullock	3
Butler	1
Coffee	7
Covington	4
Crenshaw	1
Dale	3
Elmore	8
Geneva	2
Houston	2
Lee	1
Pike	1
Russell	2
PHA VI	
Baldwin	11
Clarke	1
Conecuh	1
Dallas	5
Escambia	1
Marengo	1
Mobile	37
Monroe	1

Division of General Sanitation

The responsibility for reviewing and approving plans for onsite sewage disposal systems and for investigating vector control problems is vested in the Division of General Sanitation. The division continued to cooperate with federal, state and county agencies on subdivision reviews, school sanitation problems and alternative sewage disposal methods. Personnel advised professionals and the general public on ground absorption problems related to onsite sewage disposal.

Subdivision Review Program—Three environmentalists reviewed and approved 330 separate subdivision submittals. Of these, 155 were preliminary and 175 were final reviews. Table 5-3 lists the number of plans approved in each county. Copies of approvals for subdivisions were sent to local health departments and federal lending or loan guarantee agencies, as appropriate. These agencies, including the Veterans Administration, the Department of Housing and Urban Development and Farmers Home Administration, have cooperated in efforts to maintain good sewage disposal practices in subdivisions. As could be expected with the sagging economy, requests for subdivision approval dipped again this year. Graph 5-1 shows the subdivision approval trends since 1971.

GRAPH 5-1
SUBDIVISION APPROVAL TRENDS



School Sanitation Program—Final plans for 119 school projects were approved during 1981. Plans were reviewed to ensure that a safe, adequate water supply and a sewage disposal system were available. The responsibility for review of school food service plans was assumed by the division in July.

The school project approvals included 13 new schools. New onsite sewage disposal systems were approved at nine schools to correct disposal system failures or eliminate positive discharge outlets. Sewage treatment plans were added at three schools to correct disposal field failures.

With the release in November of the money from the sale of bonds worth $70 million, the number of school projects is expected to increase in 1982. Many more projects are expected if the Governor's oil lease money plan is approved.

Forty-two sets of school plans were held over into 1982. The majority of these plans were schematic and preliminary plans that were submitted in late fall in anticipation of the bond money release.

The school plan review section reviewed 362 sets of plans. These included 110 schematic plans, 120 preliminary plans, 129 final plans and three revised final plans. A county breakdown of school projects is given in Table 5-4.

Other Projects—Approvals were issued for one new prison, one armory, one organizational maintenance shop (OMS), five parks and recreational areas, and two miscellaneous projects. Plans for three projects were held over into 1982.

Alternative Onsite Sewage Disposal Systems—Where marginal soils exist, interest in utilizing alternative sewage disposal systems in lieu of conventional septic tank systems continued to increase even though the starting of new housing declined drastically in 1981. Use of alternate systems was not confined necessarily to the more affluent counties. Table 5-5 gives a breakdown by county of proposals for alternative systems. Since changes in the Part I *Regulations Governing Onsite Sewage Disposal Systems* will allow the local health departments to review and approve applications for aerobic treatment systems, the number of such installations will possibly increase substantially in 1982. During 1982 the division will offer necessary support to personnel in the local health departments who review aerobic treatment system

TABLE 5-4
SCHOOL PROJECTS

County	Approved	Pending
PHA I		
Colbert	0	4
Cullman	5	1
Jackson	1	2
Lauderdale	6	1
Limestone	3	2
Madison	2	2
Marion	4	0
Marshall	4	0
Morgan	0	1
PHA II		
Bibb	1	1
Lamar	1	1
Tuscaloosa	6	1
PHA III		
Blount	0	2
Chilton	6	0
Jefferson	7	2
St. Clair	2	0
Shelby	1	2
Walker	1	0
PHA IV		
Calhoun	1	2
Chambers	0	1
Clay	4	0
Cleburne	2	0
Coosa	1	0
DeKalb	1	0
Etowah	2	1
Randolph	2	0
Talladega	1	0
Tallapoosa	3	0
PHA V		
Autauga	2	1
Barbour	1	1
Bullock	1	0
Covington	1	0
Dale	1	0
Elmore	1	0
Geneva	0	1
Henry	1	0
Houston	4	3
Lee	5	0
Montgomery	4	0
Russell	3	0
PHA VI		
Baldwin	2	0
Clarke	5	0
Conecuh	1	0
Dallas	3	0
Escambia	2	0
Marengo	2	1
Mobile	5	3
Perry	2	1
Washington	1	3

TABLE 5-5
REVIEW OF PROPOSALS
FOR ALTERNATIVE SYSTEMS

	Type Unit Treatment						
County	Other*	Chroma-Glass	Mound	Multi-Flo	Jet	Singu-lair	Brooks Anti-Septic
Autauga			1				
Baldwin	2			2	5		
Blount		1					
Cherokee			1				1
Clarke			1				
Dallas	1						
Elmore	1						
Etowah				2		1	
Jackson				1			
Lauderdale				1			
Lawrence				1			
Limestone				1			
Madison				2			
Mobile	3		6	1			
Montgomery				2		1	
Morgan					1		
Shelby	2	2		2			
Talladega			1				
Tallapoosa	1						
Walker	1						
Totals	11	3	10	15	6	2	1

*Other—includes combinations of package treatment plants or septic tanks followed by absorptions bed disposal

applications. However the division will concentrate on reviewing applications for systems using anaerobic principals for treatment of sewage.

The division reviewed 48 different applications for sewage treatment using alternative systems in 1981. This figure represents a 220 per cent increase in the number of inquiries for such systems over those submitted for 1980. Without the "other" classification shown in Table 5-5, the aerobic systems comprised 73 per cent of those applications reviewed. Much of the increased use of alternative systems was to treat waste generated by large complexes such as commercial buildings and apartments.

Vector Control—The division placed more emphasis on county and city mosquito control programs during the year. Personnel conducted surveys of Clanton, Coosada, and Oneonta and made recommendations.

A joint education program, cosponsored by the Alabama Department of Public Health, Auburn University and the Alabama League of Municipalities, was held in Auburn. This was a one day conference, and 80 health department and city representatives attended. This program is now planned as an annual event.

Flies in poultry and stock operations remained a real problem. The division worked with local health departments and operation managers to instigate corrective measures to control house flies. Auburn University has been recommending an integrated approach to management of manure (drying) and the use of permethrin [Ectaban (R)] as a residual adulticide used to spray vertical surfaces of the house where the flies rest. This has seemed to make a difference in adult fly control.

Problems with blackbird/starling roosts, cattle egret rookeries, bats, lice,mites and ticks required attention on several occasions.

By observing the urban rat programs in Mobile and Tuscaloosa, the division learned about program organization and will communicate these findings to other municipal and county governments. The division observed the typhus control program in Houston County and made recommendations on safety and procedures. The staff worked closely with other agencies whose statutes were being violated.

Division of Inspection

General Food Sanitation—Personnel in the Division of Inspection made food surveys and evaluations in 14 counties. The average rating score was 79. School surveys made for 14 of the 105 school systems in the state resulted in an 86.6 average rating score. Survey reports for both county food programs and school food service operations contained recommendations for improving sanitation levels in all establishments.

TABLE 5-6
COUNTY FOOD SURVEYS

County	Average Rating Score
Barbour	80
Bullock	76
Choctaw	81
Clarke	80
Crenshaw	83
Escambia	81
Etowah	82
Houston	79
Jackson	73
Lamar	80
Marshall	75
Mobile	77
Pike	83
Sumter	78

TABLE 5-7
SCHOOL FOOD SURVEYS

School System	Average Rating Score
Choctaw County	83
Jackson County	89
Scottsboro City	94
Lauderdale County	88
Florence City	92
Lee County	88
Auburn City	89
Opelika City	89
Macon County	82
Madison County	82
Huntsville City	87
Russell County	87
Phenix City	87
Washington County	75

Seven division environmentalists retained their status of food survey officers as certified by the U.S. Food and Drug Administration (FDA). They provided local health units with technical assistance and guidance for upgrading local food programs.

The division forwarded information on food recalls issued by FDA to all local health units. Instructions for handling recalled food products were included.

The Division of Inspection issued 184 intercounty food permits.

Food manager training courses were conducted in 14 counties. Of the 491 attending the twelve hour course, 457 passed the written examination and received a certificate of completion. During the summer the course was also presented at school lunchroom workshops held at eight sites in the state.

The Fourteenth Annual Food and Milk Sanitation Workshop was held at Troy State University June 29-July 2, 1981. Twenty-six environmentalists attended this training course.

Contracts with the State Department of Education were made for inspections at summer feeding facilities and for monthly school food service inspections. The rate for each inspection was raised from $20.00 to $30.00 per inspection effective June 1, 1981.

From the 1,246 retail frozen dessert establishments in Alabama, 12,717 samples were collected and analyzed in 1981. Bacterial standards were within acceptable limits of 9,560 samples for a 75.2 percent compliance.

Four instructional courses on the cleaning and operation of retail frozen dessert freezers were conducted. Fifty-one county environmentalists and proprietors of retail establishments attended.

Retail freezers were inspected by county environmentalists as a part of the routine establishment inspection. Establishment evaluation is included in annual food surveys.

Hotels and Motels—The 487 hotels and motels with valid permits for fiscal year 1982 are 45 fewer than were permitted in 1981.

The county health departments conducted 1,549 inspections of hotels and motels for an average inspection of 2.91 times for the year for each one. This average is less than the inspection frequency for the previous year. In the 1980 permit year, 85 percent of the minimum required number of inspections were conducted. Only 73 percent of the required inspections were conducted in 1981. The Hotel and Motel Regulations state that inspections shall be conducted at least once every calendar quarter.

Table 5-8 gives the 1981 report of inspections by counties listed alphabetically. The map (Chart 5-1) designates the frequency of inspection by county and public health area. The average inspection frequency does not take into consideration the opening or closing of motels, but asterisks in the table indicate which counties have filled their legal obligations for quarterly inspections.

TABLE 5-8
HOTEL/MOTEL INSPECTION

County	Number Hotels/Motels	Number Inspections	Average Inspection Frequency
Autauga	3	10	3.33*
Baldwin	36	65	1.81
Barbour	7	23	3.29
Bibb	1	1	1.00
Blount	2	7	3.50
Bullock	2	8	4.00*
Butler	3	13	4.33*
Calhoun	12	14	1.17
Chambers	2	2	1.00
Cherokee	2	10	5.00*
Chilton	2	6	3.00
Choctaw	2	6	3.00
Clarke	5	30	6.00*
Clay	2	8	4.00*
Cleburne	1	1	1.00
Coffee	3	3	1.00
Colbert	9	10	1.11
Conecuh	3	22	7.33*
Coosa	2	8	4.00*
Covington	7	23	3.29
Crenshaw	2	9	4.50*
Cullman	7	28	4.00*
Dale	6	22	3.67
Dallas	13	49	3.77
DeKalb	11	39	3.55*
Elmore	3	7	2.33
Escambia	7	24	3.43
Etowah	15	72	4.80*
Fayette	2	8	4.00*
Franklin	3	3	1.00*
Geneva	2	10	5.00*
Greene	2	1	0.50
Hale	2	22	11.00*
Houston	16	64	4.00*
Jackson	5	8	1.60
Jefferson	65	189	2.91
Lamar	2	8	4.00*
Lauderdale	10	30	3.00
Lawrence	1	4	4.00*
Lee	12	48	4.00*
Limestone	4	12	3.00
Macon	5	14	2.80
Madison	32	108	3.38
Marengo	4	8	2.00
Marion	7	21	3.00

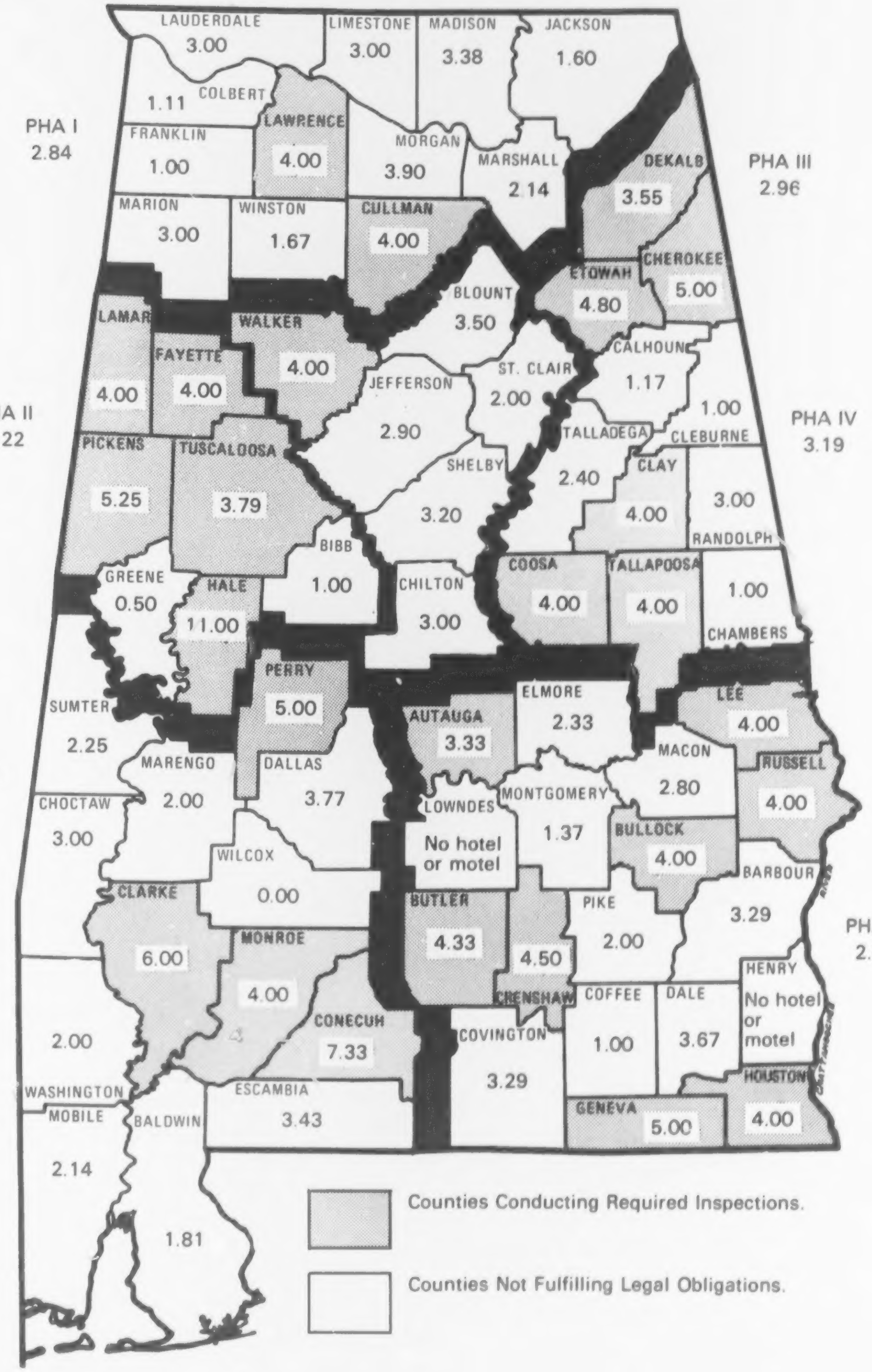
TABLE 5-8 (continued)
HOTEL/MOTEL INSPECTION

Marshall	14	30	2.14
Mobile	51	109	2.14
Monroe	3	12	4.00*
Montgomery	35	48	1.37
Morgan	10	39	3.90
Perry	1	5	5.00*
Pickens	4	21	5.25*
Pike	6	12	2.00
Randolph	2	6	3.00
Russell	6	24	4.00*
Shelby	5	16	3.20
St. Clair	5	10	2.00
Sumter	4	9	2.25
Talladega	10	24	2.40
Tallapoosa	5	20	4.00*
Tuscaloosa	14	53	3.79*
Walker	6	24	4.00*
Washington	2	4	2.00
Wilcox	2	0	0.00
Winston	3	5	1.67
TOTAL	532	1,549	2.91

TABLE 5-9
PENAL INSTITUTIONS

County	Work Release Facility	Major Institution	Proposed Institution
PHA I			
Marion	1		
Morgan	1		
PHA II			
Hale	1		
PHA III			
Jefferson	1		1
St. Clair			1
PHA IV			
Coosa	1		
Talladega	1		
PHA V			
Coffee	1		
Elmore	1	5	
Montgomery	2	1	
PHA VI			
Baldwin	1		
Clarke	1		
Escambia	3	2	
Mobile	2		
Wilcox	1		

CHART 5-1
AVERAGE FREQUENCY OF HOTEL/MOTEL INSPECTION


LAUDERDALE 3.00
LIMESTONE 3.00
MADISON 3.38
JACKSON 1.60
COLBERT 1.11
LAWRENCE 4.00
FRANKLIN 1.00
MORGAN 3.90
MARSHALL 2.14
DEKALB 3.55
PHA I 2.84
PHA III 2.96
MARION 3.00
WINSTON 1.67
CULLMAN 4.00
ETOWAH 4.80
CHEROKEE 5.00
BLOUNT 3.50
LAMAR 4.00
FAYETTE 4.00
WALKER 4.00
JEFFERSON 2.90
ST. CLAIR 2.00
CALHOUN 1.17
CLEBURNE 1.00
PHA II 4.22
PHA IV 3.19
PICKENS 5.25
TUSCALOOSA 3.79
SHELBY 3.20
TALLADEGA 2.40
CLAY 4.00
RANDOLPH 3.00
BIBB 1.00
GREENE 0.50
HALE 11.00
CHILTON 3.00
COOSA 4.00
TALLAPOOSA 4.00
CHAMBERS 1.00
PERRY 5.00
SUMTER 2.25
AUTAUGA 3.33
ELMORE 2.33
LEE 4.00
MARENGO 2.00
DALLAS 3.77
MACON 2.80
RUSSELL 4.00
PHA VI 2.58
CHOCTAW 3.00
LOWNDES No hotel or motel
MONTGOMERY 1.37
BULLOCK 4.00
WILCOX 0.00
BARBOUR 3.29
CLARKE 6.00
BUTLER 4.33
CRENSHAW 4.50
PIKE 2.00
PHA V 2.86
MONROE 4.00
HENRY No hotel or motel
COFFEE 1.00
DALE 3.67
CONECUH 7.33
COVINGTON 3.29
WASHINGTON 2.00
ESCAMBIA 3.43
GENEVA 5.00
HOUSTON 4.00
MOBILE 2.14
BALDWIN 1.81
▨ Counties Conducting Required Inspections.
☐ Counties Not Fulfilling Legal Obligations.

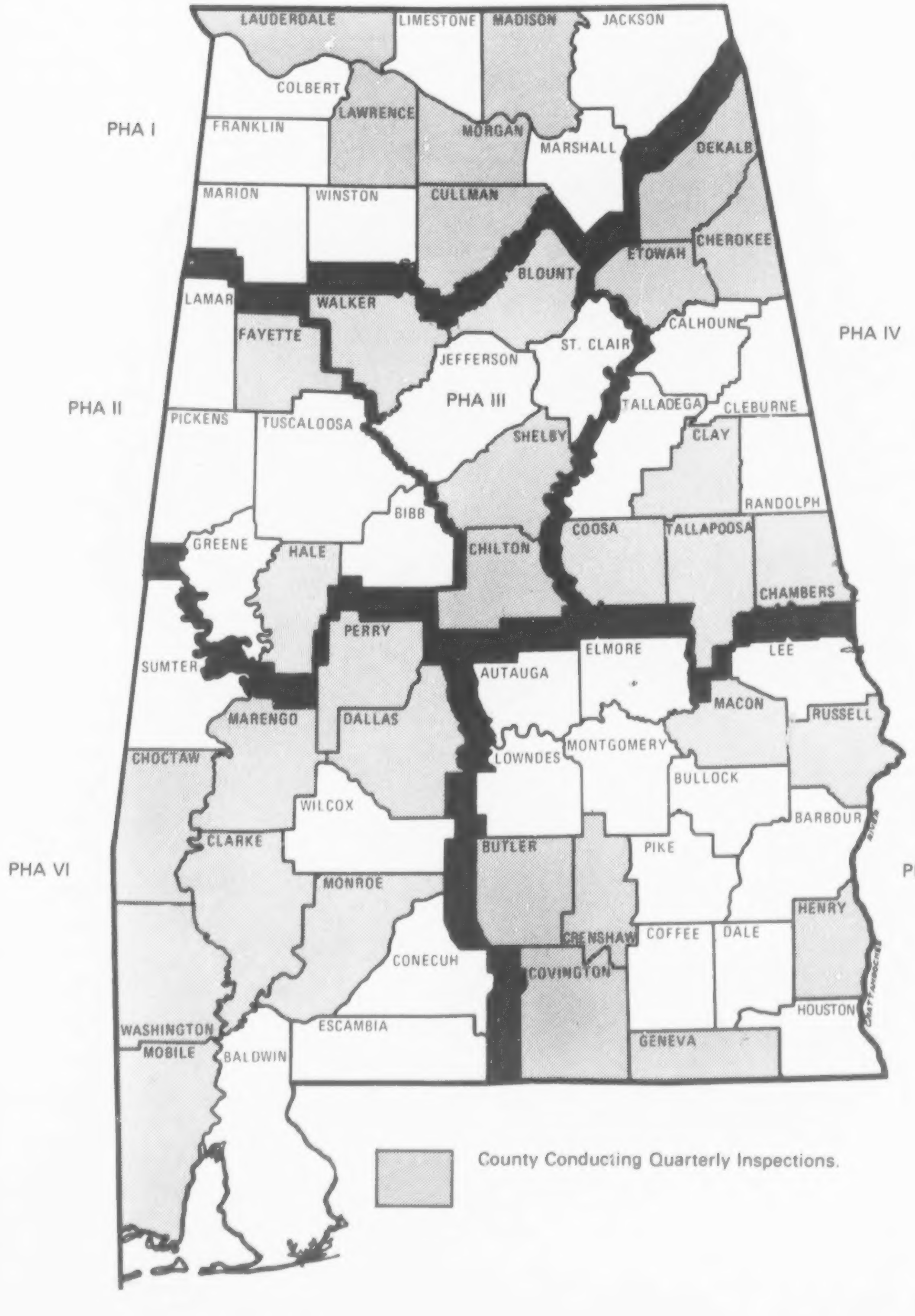
Jail and Prison Program—Alabama currently has eight major prisons, 18 work release facilities and one employee housing facility. Table 5-9 gives the counties in which the penal institutions are located. During 1981, 51 inspections were conducted at the major prisons; and 102 inspections were completed at the other prison facilities.

In November 1981 Staton annex began operation. This is a 500-man temporary facility, located in Elmore County, and is designed to operate until a new permanent facility is ready for occupancy. Two new facilities are now in the planning stage, West Jefferson Prison and St. Clair Prison. Construction on the West Jefferson facility has already begun.

The Board of Correction Food Processing Plant began operation in 1981. This facility was inspected three times in 1981, but it does not fully meet construction requirements for a food processing establishment and has not yet been approved by this office.

Currently there are 244 jails located within Alabama. Local health department environmentalists conducted 1,253 inspections at these facilities. At the request of the local health departments, the Calhoun County jail and the Houston County jail were jointly inspected once during the year, and inspection findings reported to the appropriate authorities. Chart 5-2 shows the counties which conducted regular quarterly inspections of their jails.

CHART 5-2
COUNTY JAIL INSPECTION


LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
FRANKLIN
MORGAN
MARSHALL
DEKALB
PHA I
MARION
WINSTON
CULLMAN
ETOWAH
CHEROKEE
BLOUNT
LAMAR
WALKER
FAYETTE
CALHOUN
ST. CLAIR
JEFFERSON
PHA IV
PHA III
PHA II
PICKENS
TUSCALOOSA
TALLADEGA
CLEBURNE
SHELBY
CLAY
RANDOLPH
BIBB
GREENE
HALE
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
PERRY
SUMTER
ELMORE
LEE
AUTAUGA
MARENGO
DALLAS
MACON
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
PIKE
PHA VI
PHA V
MONROE
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
HOUSTON
WASHINGTON
ESCAMBIA
GENEVA
MOBILE
BALDWIN
▨ County Conducting Quarterly Inspections.

Milk Sanitation—The milk program was centralized under the Division of Inspection during 1981. The state was divided into six milk districts with one environmentalist in each district being responsible for inspection and sampling of all producer dairies, pasteurization plants, frozen dessert plants and single-service container plants in that district. The division assumed responsibility for Public Health Area I in October with other areas following until all counties, except Jefferson and Mobile, were under the centralized program by the end of January 1982.

At the end of 1981, 452 producer dairies, 22 pasteurization plants, one cottage cheese plant and four single-service container manufacturing plants were located in Alabama. Permits were issued to 94 bulk milk haulers and 91 bulk milk transport trucks. In addition Alabama received raw milk from 21 sources and pasteurized milk and milk products from 50 plants outside the state during 1981.

Inspections of dairy farms totaled 1,617, and 108 inspections were made at milk pasteurization plants. Eleven inspections of milk distribution stations, 10 inspections of cottage cheese plants, 16 inspections of single-service milk container plants and 123 inspections of milk and tank trucks were conducted.

Plans were reviewed for 17 new or remodeled barns and for equipment changes at 12 dairies.

The California Mastitis Test Kit was used to check 1,603 cows from 29 herds. The 449 individual quarter samples collected from cows were submitted to the state diagnostic laboratory for identification of organism and sensitivity.

There were 4,573 samples of raw milk collected at farms. Of these samples 636 exceeded the limit for the

TABLE 5-10
VIOLATIONS OF STANDARDS IN PASTEURIZED MILK AND MILK PRODUCT SAMPLES

Product	No. Samples	No. High Coliform	No. High Bacteria	No. BF Violation	Pos. Phos.	Pos. Growth Inhibit.	Added Water	No. in Violation	Percent in Violation
Homogenized Milk	1,896	158	189	407	1	7	3	608	32.1
Low Fat Milk	966	64	74	243	1	5	2	325	33.6
Skim Milk	658	57	63	206	0	2	1	257	39.1
Whipping Cream	350	5	15	77	1	0	0	88	24.5
Coffee Cream	4	0	0	0	0	0	0	0	0
Half & Half	455	11	17	68	0	1	0	87	19.1
Buttermilk	729	9	0	0	0	0	0	9	1.2
Sour Cream	304	9	0	0	0	0	0	9	3.0
Nondairy	26	0	0	0	0	0	0	0	0
Flavored Milk	410	29	50	199	0	0	0	226	55.1
Flavored Lowfat Milk	723	55	79	222	0	1	0	287	39.7
Yogurt	151	3	0	0	0	0	0	3	2.0
Cottage Cheese	315	28	0	0	0	0	0	28	8.9
Dressing or Dip	63	7	0	0	0	0	0	7	11.1
Others	19	1	1	0	0	0	0	2	10.5
TOTAL	7,078	436	488	1,422	3	16	6	1,936	27.3

Wisconsin Mastitis Test; 297 exceeded the Direct Microscopic Somatic Cell Count; and 331 exceeded standard plate count criteria. Thirteen were positive for growth inhibitors, and 13 contained water. A total of 594 of the samples violated established standards.

Of the 1,159 commingled raw milk samples, 164 exceeded established standards. Ten were positive for growth inhibitors, and 152 had unacceptable bacteria counts.

About 27 percent, or 1,936, of the pasteurized milk and milk product samples collected for laboratory examination violated established standards contained in the milk regulations. Table 5-10 reports the type and number of violations found in the 7,078 samples analyzed.

FDA certified one environmentalist in the division as a survey rating officer.

Environmentalists attended two courses in pasteurized milk sanitation and frozen dessert sanitation in Selma. The Region IV Survey Officers Seminar at Gatlinburg, Tennessee, was attended by three division environmentalists, and one attended the Interstate Milk Shippers Conference at Hot Springs, Arkansas.

Four surveys were completed, and the FDA made check ratings for the milk supplies listed on the Interstate Milk Shippers List and one single-service container plant. Tables 5-11 and 5-12 report the results of these inspections.

Division of Inspection environmentalists joined county environmentalists to make 26 inspections of the nine frozen dessert mix processors and the nine frozen dessert manufacturing plants in Alabama. In addition to the 18 frozen dessert plants within Alabama, frozen dessert permits were issued to eight mix processors and 38 frozen dessert manufacturers which are located out of the state.

Frozen dessert samples collected for bacteriological analysis totaled 2,281. Of the 1,004 samples from frozen dessert manufacturers, 856 were within bacterial standards for a 85.3 percent compliance. A 91.4 percent compliance was registered by 1,166 of the 1,277 samples from frozen dessert mix processors being within bacterial standards.

TABLE 5-11
DAIRY SURVEYS

Milk Supply Rated	Raw	Plant	Pasteurized	Enforcement
Dairymen, Montgomery	95			91
Perry's Meadow Gold, Tuscaloosa	96	94	95	98
Southern Milk Sales, Montgomery	93			95
Barber Pure Milk Co., Birmingham	93	97	95	88

TABLE 5-12
FDA CHECK RATINGS

Milk Supply Rated	Producers		Plant		Enforcement	
	Published Rating	Check Rating	Published Rating	Check Rating	Published Rating	Check Rating
Barber, Anniston	90	—	90	95	91	93
Meadow Gold, Gadsden	93	93	91	88	90	92
Barber, Birmingham	91	85	98	100	97	89
Baker & Sons, Birmingham	90	—	92	94	95	92
Dairymen, Inc., Fayette	94	88	—	—	93	82
Flav-O-Rich, Inc., Fayette	90	—	94	81	95	91
Halls Bros., Montgomery	92	96	92	83	95	89
Flav-O-Rich, Inc., Montgomery	90	—	92	89	97	90
Southern Milk Sales, Montgomery	95	91	—	—	96	89
Superbrand, Montgomery	90	—	90	94	97	96
Superbrand, Montgomery (Jug Manufacturer)			Acceptable			

Seafood Program—The State Health Officer issued only one order in 1981 that affected oyster growing areas. The order, issued February 6, opened Dauphin Island Bay to the harvesting of oysters. Prior to opening the area, water sampling and a sanitary study had been conducted. There were no closing orders issued becaused the very dry winter and spring months resulted in limited fresh water entering Mobile Bay from the river system.

Water from various oyster growing areas was routinely sampled during the year. These samples were used in conjunction with the management plan in making decisions on whether to open or close oyster growing areas.

At the end of the year, Alabama's conditionally approved oyster growing waters were open.

The fall oyster season opened in September with the Cedar Point area being very productive. Consequently Alabama processors relied on local oysters rather than seeking out-of-state sources for their supply.

The source and quality of shellstock for Alabama plants was not typical in 1981. Because of the quantity of oysters harvested from Dauphin Island Bay and Cedar Point Reef, more shellstock came from Alabama growing waters than in past years. The out-of-state oysters that were used in Alabama plants came from Louisiana and Texas.

The relative quality of oysters sampled in 1981 was somewhat better than in recent years. Six, or 14 percent, of the samples collected from Alabama sources did not meet fecal coliform standards; but no other standards were violated. Eighty-eight out-of-state samples were collected; and 25, or 28 percent, did not meet fecal coliform standards. No other standards were violated.

Permits were issued for oyster shucking and packing plants from October until the end of the year. By then some 30 plants held valid permits. Plants were inspected, and water supply samples were taken from the plants that had private water supplies.

Twenty-two permits were issued for crabmeat plants during 1981. There was no change in number from 1980. Some of these plants are seasonal and are used to process oysters during the winter months. Sanitary inspections were made, and water supply samples were taken from plants with private water supplies.

Division of Public Water Supplies

The primary responsibility of the Division of Public Water Supplies is to implement the *Rules and Regulations Governing Public Water Supplies* established by authority of the Alabama Safe Drinking Water Law. The law defines the public water supply category as any water system which provides drinking water to 25 or more people at least 60 days a year. Subunits of this category are noncommunity and community public water supplies. Noncommunity water supplies refer to those systems without full time residents, such as parks, camps, schools and industries. Community water supplies provide drinking water to full time residents. Examples of these systems are municipalities and mobile home parks.

At the end of 1981, 702 community water supplies were operating in Alabama. Of these, 102 were mobile home parks. The total number of community supplies was reduced by 26 from the number existing in 1980. The majority of the deletions resulted from smaller systems being merged with larger neighboring community water supplies. A small portion of the community supplies other than mobile home parks utilized surface water sources, but the others used groundwater.

Regulations require that all community water supplies maintain a chlorine residual of no less than 0.5 parts per million throughout their water service areas. Nine supplies which were not providing continuous chlorination to their drinking water were small subdivision type community supplies.

Sixty-one community mobile home parks have chlorination equipment available. The majority of them are located in the northern part of the state where the wells are more susceptible to contamination. Since all community water supplies are required to chlorinate their drinking water, the remaining 41 mobile home parks must comply. These systems have been notified by letter of their noncompliance and have been given a minimum time in which to comply. At the end of 1982 all community water supplies including mobile home parks should be continuously chlorinating their drinking water.

The 529 active noncommunity water supplies in the state at the end of the year were 101 fewer than the previous year. Smaller noncommunity supplies have been taken into larger community supplies. Of the noncommunity supplies, 22 percent were schools and day care centers; 25 percent were campgrounds and state parks; 27 percent were restaurants and motels; 19 percent were industries; and 7 percent were service stations, highway rest areas and such.

Leak Detection Classes—Staff of the division conducted leak detection classes in selected areas of the state during 1981. Leak detection equipment and practical leak detection measures were demonstrated and used to check for leaks in the system at which the class was being conducted. Members of surrounding water systems were invited to attend, and overall the leak detection classes were successful in demonstrating to the waterworks operators and managers the importance of maintaining a water system with minimal losses.

Water System Construction—Permits issued for construction of water projects in the state for 1981 were less than those in 1980. New customers totaled 5,993 during 1981 through the installation of 567 miles of distribution pipe. The total cost of the projects amounted to $47.5 million compared with $49 million in 1980 for the addition of 8,278 customers. Thus the average cost per new customer in 1981 was $7,921 compared with $5,919 per customer in 1980. In 1977 the cost per customer was only $2,352. The number of new customers added in 1981 was approximately 2,300 fewer than in 1980 for a 28 percent reduction in new customers from the previous year. A one percent reduction occurred in 1980. Lack of funding created by economic conditions and high interest rates will possibly result in further reductions in new customers in 1982.

Only 212 subdivisions were reviewed during 1981, compared with 297 in 1980, 400 in 1979, 1,000 in 1978, and 1,400 in 1977. Only 9 percent of subdivisions reviewed in 1981 were approved for constructing individual water supplies. The remainder connected to existing public water supplies.

Water Division Employees—The Water Division staff during 1981 consisted of seven public health engineers, three environmentalists, five stenographers, two clerk typists and three clerks. During the year one engineer returned from educational leave, and one environmentalist left on educational leave.

Inspection and Surveillance—During onsite inspections of water supplies, division staff discussed system operations and noted any discrepancies. These were pointed out to the appropriate person at the system. A written summary of the findings of the visit was submitted to the person who has overall responsibility for each system. All community and noncommunity water supplies were inspected at least once during the year; but if there were particular problems or complaints, more visits were made.

The size of the system, problems with water quality and the extent of treatment prior to the water being placed into the distribution system influenced the amount of time required to inspect a system. It took less time to evaluate a system which purchased water than one with its own treatment facilities and several sources.

During 1981 an average of 0.63 man days per community water system and 0.29 man days per noncommunity system was spent performing onsite evaluations. Inspection of community water supplies required 443 man days for the year while visits to noncommunity supplies needed 142 man days. To make these inspections, the staff drove division owned automobiles 107,571 miles, or about 7,000 miles more than the previous year.

Even though the average time spent per community system increased slightly in 1981, more time is needed to survey all water systems in the state thoroughly so that potential health hazards can be discovered and corrected before they occur.

Bacteriological Monitoring and Enforcement—State and federal laws require that all public water systems be monitored to determine if bacteriological contamination in a supply exceeds the maximum contaminant level (MCL) which would be acceptable. Under the present state law each system must submit water samples monthly. The number of samples which each system has to submit is determined by the population being served, but there must be at least two. The bacteriological analyses are performed by the Health Department laboratories and municipal laboratories. If a water system is not in compliance with the *Rules and Regulations Governing Public Water Supplies*, it must notify the public and take corrective action.

Forty-seven community water systems were in violation of the bacteriological MCL in 1981. Eleven of them were community mobile home parks to which 13 violations were issued. The 11 mobile home parks in violation represent a decrease from 26 in 1980 while 29 more community water systems (excluding mobile home parks) were in violation during 1981 than in the previous year. Since some of these systems were out of compliance more than once, 61 violations were issued. All but one of the public notifications were received from the community supplies which were in violation during 1981.

Fifty-eight community water supplies violated monitoring requirements two or more times. These infractions necessitated 134 violations being issued.

Ninety-seven, or 20 percent, of the noncommunity water systems exceeded the bacteriological MCL during the year. Monitoring requirements were violated by 168 (34 percent) of these systems.

Chemical Monitoring Enforcement—All community water systems utilizing groundwater must conduct chemical monitoring for inorganics including heavy metals every three years. Those systems which use surface water have to submit water samples for analysis for both organic and inorganic contamination yearly.

Both community and noncommunity systems must monitor for turbidity daily. Unlike other required chemical analyses, turbidity does not have to be determined by an approved laboratory. The operator or other capable person can examine samples at the water plant. One community system violated the MCL for turbidity three times, and nine violations were recorded for three noncommunity systems.

Six community systems were issued violation notices because the fluoride in their water exceeded the acceptable level. No other chemical or radiological contaminants exceeded the MCL during the year.

Water systems serving more than 75,000 customers must monitor for trihalomethanes (THM). THMs are formed when chlorine used in water treatment combines with certain organic compounds present in the raw water. The MCL for THMs is 0.10 miligrams per liter of water. In 1981 only one system exceeded this limit. Two systems failed to monitor properly for THMs. In 1982 the division will be required to monitor for THMs in systems serving populations of more than 10,000.

Model State Information System—Relevant information on community and noncommunity water systems is stored in the Model State Information System (MSIS). The system is repeatedly updated so that the information is kept current.

On the recommendation of the department's Bureau of Health Data Systems, the Water Division purchased mini-computers which it thought would be compatible with the MSIS program. Since the division has not received a usable program, the computers have not yet been installed.

Training and Certification—*Rules and Regulations for the Certification Board* was adopted in fiscal year 1981. More than 400 applications for the water certification examination were received this year. In March 176 persons took the examination, and 67.6 percent of them passed. In August 47.1 percent of the 170 taking the examination passed.

A three day seminar was conducted August 17 to 19. All waterworks operators in the state were invited and more than 400 attended.

Two full-time instructors taught approximately 80 five day classes in various cities throughout the state. Operators from all water systems within a 50 to 60 mile radius of each city were invited. Approximately 8,000 notices were mailed.

Part-time instructors, paid by the State Education Department, taught waterworks classes throughout the state. Fifty hours of each basic course were taught.

Informal training for the personnel of this division was conducted. Secretaries attended workshops. One engineer completed graduate school at Mississippi State University. An environmentalist recently entered graduate school at the University of Alabama in Birmingham.

Water Well Standards Board—During fiscal year 1981, the Water Well Standards Board granted 167 licenses to construct water wells in Alabama. Of these, 147 were from Alabama, seven from Georgia, six from Florida, eleven from Mississippi and three from Tennessee. During the year approximately 1,100 private water wells were constructed, a 27 percent decrease from the previous year. The peak of the drilling season was the third quarter when 332, or 30.2 percent, of the wells were drilled. The Alabama Water Well Standards Board visited 53 counties and inspected 374 water wells. Of the wells inspected, 6.95 percent were not approved, a decrease of 2 percent from the previous year.

Division of Radiological Health

Browns Ferry in Limestone County and Farley in Houston County are the two nuclear plants in Alabama. To meet the new federal criteria for safety, the Division of Radiological Health revised the State Radiation Emergency Plan in 1981. The revision process included public meetings and a two day evacuation exercise at the Browns Ferry Nuclear Plant. The drill was designed to familiarize residents and government officials with evacuation procedures which should be followed in case of an emergency. Major equipment must be purchased to meet the new criteria.

The division coordinates emergency response procedures for ionizing radiation with other state agencies. The division also regulates all sources of ionizing radiation except reactors.

Radioactive Materials—As of December 31, 1981, there were 402 valid specific licenses to use radioactive materials in Alabama. The number and type of licenses are listed in Table 5-13. During the year 299 amendments to licenses were issued, and 25 new licenses were issued.

The division inspected 50 of these licenses in 1981. Two incidents involving radioactive materials were reported to the division during the year.

X-Ray Equipment—Table 5-14 gives the total inventory of X-ray equipment in Alabama, excluding Jefferson County, which conducts its own X-ray program. Table 5-15 gives the X-ray inspection data for these units. Inspectors found that 27 percent of the facilities and 8 percent of the machines were not in compliance.

TABLE 5-13
RADIOACTIVE MATERIAL LICENSES

Medical	121
Academic	31
Industrial	206
Civil Defense	1
Other	43
TOTAL	402

TABLE 5-14
REGISTERED X-RAY MACHINES

Dental	1,500
Physicians and Clinics	709
Hospitals	750
Chiropractic	154
Veterinarians	112
Podiatrists	10
Industrial	100
TOTAL	3,335

TABLE 5-15
X-RAY INSPECTION MACHINES DATA

Dental	311
Physicians and Clinics	177
Hospitals	158
Chiropractic	53
Veterinarians	51
Podiatrists	1
Industrial	12
TOTAL	763

Division of Solid and Hazardous Waste

The Division of Solid and Hazardous Waste served two major program areas—management of solid waste and of hazardous waste.

Solid Waste Management—Site evaluations, site permitting, open dump inventory and complaint investigations were responsibilities of this program. Tables 5-16 and 5-17 summarize landfill and collection system activities respectively.

The number of landfills decreased slightly during the last three years because some smaller, less efficient operations consolidated with larger ones. Inspection requirements for the open dump inventory and a decrease in personnel resulted in fewer inspections of landfills. The percentages of landfills which were occasionally substandard or chronically substandard increased slightly in 1980 due to tighter landfill requirements; but they decreased in 1981, indicating a general improvement in landfill quality.

The trend has been for counties to establish house-to-house collection systems rather than bulk container systems because it is possible that the house-to-house systems can become self-supporting. Some county systems served smaller municipalities, but the majority of the cities and towns had independent collection services.

During 1981, 54 requests for site permits were received. The hydrologic characteristics of each site was evaluated as

TABLE 5-16
SOLID WASTE SANITARY LANDFILL EVALUATIONS

	1979		1980		1981	
	Number	Percent	Number	Percent	Number	Percent
Total Sanitary Landfills	134	—	133	—	129	—
Total Inspections	511	—	354	—	306	—
Average Inspections Per Landfill	3.8	—	2.7	—	2.4	—
Substandard at some time during the year	62	12	47	13	24	8
Substandard more than once per year	14	2.7	12	3.5	6	2

TABLE 5-17
SOLID WASTE COLLECTION SYSTEMS AVAILABLE TO COUNTY UNINCORPORATED AREAS

	1979		1980		1981	
	Number	Percent	Number	Percent	Number	Percent
House-to-House or Mailbox	46	69	47	70	48	72
Bulk Container System	18	27	16	24	15	22
Combination of Above	2	3	3	5	3	5
Not fully organized H-to-H	1	1	1	1	1	1

part of the review process. Eight permits were issued. Poor site characteristics caused 18 of the requests to be denied, and 24 operational plans are under design and development. For permit applications were withdrawn because of public reaction.

Eighty-one landfills were evaluated for compliance with federal open dump criteria. Ten of them were rated as open dumps and reported to the Bureau of Census for publication in the National Open Dump Inventory of the Federal Register. All ten of the sites failing the evaluation have been notified to upgrade the sites to meet state and federal requirements or to close. Of the six sites reported as open dumps in 1980, five have been closed or are in the process of closing, and one site has been upgraded to meet the necessary landfill requirements.

Complaints from citizens, private organizations or governmental agencies were investigated. Local health departments participated in these investigations.

The division has recently upgraded its *Solid Waste Management Regulations* to address the federal criteria for the Classification of Solid Waste Disposal Facilities. The state regulations were adopted and promulgated by the State Board of Health on November 18, 1981. They became effective 30 days after promulation.

Hazardous Waste Management—Planning and implementing of the Hazardous Waste Management Program continued to develop so that it not only meets federal requirements but also ensures proper management of certain hazardous wastes. During 1981 the state hazardous waste management regulations were revised to address changes in the federal requirements. The proposed regulations are in draft form, were subjected to a public hearing in December 1981, and are awaiting any further comments. It is anticipated that the final revised regulations will be available for printing in the spring of 1982.

The Interim Authorizaiton Application (Phase I), which was submitted to the Environmental Protection Agency (EPA) in 1980, was approved in February 1981. With this approval EPA delegates to the state responsibility for the overall management of certain hazardous wastes. A draft copy of Interim Authorization Application (Phase II) was submitted to EPA in December 1981 and is currently under review. If approval is granted, the state will be authorized to permit certain functions for the transportation, storage, disposal and treatment of hazardous wastes in lieu of the federal program. Permit requirements are being developed to meet EPA standards and criteria.

The hazardous waste section, with the cooperation and under the guidance of EPA, evaluates uncontrolled sites through the Superfund Program. An uncontrolled site is one that contains potentially hazardous waste which may adversely affect the environment and that is not specifically regulated under Alabama's *Hazardous Waste Management Rules and Regulations* or federal requirements promulgated under the Resource Conservation and Recovery Act. Site notification may be by reports, voluntary or otherwise, or through investigations initiated by division personnel. A detailed form is used to collect site information and thereby to develop a priority site list. The priority sites will be the first to be evaluated with the remainder to be investigated and evaluated within the next two years. To date 150 sites have been reported, but it is estimated that less than 20 percent will require detailed remedial action.

The hazardous waste and industrial control section has been actively involved in inspecting facilities which generate, treat, store or dispose of hazardous wastes. During 1981 over 300 industries generating hazardous and nonhazardous industrial wastes were visited by representatives of the section. Many of the visits consisted of interim status inspections which are conducted to determine if an industry is to be granted temporary authority to continue operations and practices by complying with basic requirements set by EPA and state regulations. The division received over 180 applications for hazardous waste transporter permits. Approximately 50 of the applications have been processed, but the remainder of the applicants have been requested to submit additional information for compliance measures.

ALABAMA AIR POLLUTION CONTROL COMMISSION

Attainment Status—The 1977 revisions of the Clean Air Act require that all states identify those areas monitoring violations of the National Ambient Air Quality Standards (NAAQS) for the five major pollutants. Such areas are termed "nonattainment."

Since the original nonattainment designations were made for the state four years ago, more than half of them have been reclassified, indicating improved air quality. Table 5-18 gives the nonattainment designations of the state.

Specific geographic areas in nine counties were identified by the Alabama Air Pollution Commission (AAPCC) in December of 1977 as moitoring violations of the NAAQS. Pollutants for which standards were being violated included total suspended particulates (TSP), ozone and sulfur dioxide (SO_2). Nonattainment designations for ozone were done on a countywide basis, whereas the TSP and SO_2 areas were designated on the basis of sub-county tracts. The designations were also defined as primary, those violations of health related standard, and secondary, those violations of welfare related standard.

Nonattainment areas in Alabama which have been redesignated include the following: the northern portion of Mobile County from nonattainment of the secondary TSP standard to attainment, Florence area in Lauderdale County from nonattainment of the secondary TSP standard to attainment, Decatur area in Morgan County from nonattainment of the secondary TSP standard to attainment, Morgan County from nonattainment for ozone to attainment, Madison County from nonattainment for ozone to attainment, and an area in the vicinity of the Tennessee Valley Authority's Widows Creek Steam Plant in Jackson County from nonattainment of the TSP primary standard to attainment.

In Jefferson County approximately 50 percent of the original nonattainment areas have been reduced by the following redesignations: Fairfield area from nonattainment of the primary TSP standard to nonattainment of the secondary standard; the Irondale and Bessemer areas from nonattainment of the primary TSP standard to unclassified; Homewood, Fultondale, Robinwood, and East Lake areas from nonattainment of the primary TSP standard to attainment.

By mid-1981 the ozone monitoring network had been operational for one year. Data indicating no violations of the ozone standard resulted in the redesignation of the following seven counties from unclassified for ozone to attainment: DeKalb, Fayette, Jackson, Lamar, Limestone, Marion and Marshall.

TVA—All units at the two Tennessee Valley Authority steam plants in Alabama were in compliance with applicable air pollution control regulations by the end of

TABLE 5-18[a]
NONATTAINMENT DESIGNATIONS

County	1977	1981
Mobile		
Ozone	NA	NA
Total Suspended Particulates—State Docks Area	NA/P	NA/P
Northern Portion of County	NA/S	A
Russell		
Ozone—Phenix City/Columbus, Georgia Area	NA	NA
Jefferson		
Ozone	NA	NA
Total Suspended Particulates		
Fairfield Area	NA/P	NA/S
Irondale and Bessemer Areas	NA/P	U
Homewood Area and Fultondale, Robinwood, and East Lake Areas	NA/P	A
Leeds	NA/P	NA/P
Central Metropolitan Birmingham Area	NA/P	NA/P
Etowah		
Total Suspended Particulates—Gadsden Area	NA/P	NA/P
Lauderdale		
Total Suspended Particulates—Florence Area	NA/S	A
Lauderdale/Colbert		
Sulfur Dioxide—Adjoining portions in immediate vicinity of Tennessee Valley Authority's Colbert County Steam Plant	NA/S	NA/S
Morgan		
Total Suspended Particulates—Decatur Area	NA/S	A
Ozone	NA	A
Madison		
Ozone—Huntsville Area	NA	A
Jackson		
Total Suspended Particulates—Tennessee Valley Authority's Widows Creek Steam Plant Area	NA/P	A
Sulfur Dioxide	NA/P	NA/P

NA/P—Nonattainment, primary standard
NA/S—Nonattainment, secondary standard
A—Attainment
U—Unclassified

1981. Compliance was achieved as a result of both a voluntary commitment by TVA and the legal action initiated by the AAPCC which, after a six and one-half year period, resulted in issuance of a consent decree.

In 1975 the estimated annual particulate and sulfur dioxide (SO_2) emissions for the Colbert County Steam Plant were 25,040 and 171,453 tons respectively. TVA constructed a new electrostatic precipitator for Unit 5 at this plant in 1976. Under provisions of the consent decree, the facility began buying low sulfur coal in 1978 to reduce SO_2 emissions from all units. The coal turnover was completed in mid-1979, and the five units were tested and permitted in late 1979 and early 1980.

Emissions from the Widows Creek Steam Plant in Jackson County were calculated in 1975 as being 138,141 tons per year of particulates and 217,909 tons per year of SO_2. During 1977 and the early part of 1978, new electrostatic precipitators were installed at the Widows Creek Plant on Units 1 through 6, and a limestone scrubber was installed on Unit 8. Under provisions of the consent decree, TVA agreed to install a limestone scrubber on Unit 7 and to burn low sulfur coal in Units 1 through 6. The coal turnover was completed in late 1979, and the scrubber was completed and tested in late 1981.

Table 5-19 gives the estimated reductions in emissions resulting from compliance by the TVA facilities.

TABLE 5-19
TVA FACILITIES
ESTIMATED ANNUAL REDUCTIONS IN TONS

	Particulates	Sulfur Dioxide
Colbert County	23,010	77,382
Widows Creek	134,840	159,028
TOTAL	157,850	236,410

Acid Rain—Nationwide, interest in the significant environmental problems posed by acid rain has increased.

The greatest needs in regard to this new challenge appear to be establishing comprehensive programs to determine the scope of the present problem, determining long-term trends resulting from atmospheric acid deposition and meeting the research data requirements necessary to gain a better understanding of the atmospheric processes involved in the production of acid rain.

During 1981 the AAPCC purchased equipment to establish two acid rain monitoring sites. The monitor located in Tallassee began collecting samples in December of 1981, and a site in Monroeville is scheduled to become operational within the next several months.

In addition to the AAPCC operated sites, the agency has coordinated with other agencies monitoring for acid rain. These include the Tennessee Valley Authority, the U.S. Geological Survey, Southern Company, and the pulp and paper industry.

To assure quality control and consistency, all samples will be analyzed for chemical composition by the Environmental and Monitoring and Systems Laboratory in Research Triangle Park, North Carolina.

At least a full year of monitoring will be required to collect baseline data.

VOC Controls Implemented—Regulations for the control of volatile organic compound (VOC) emissions from 11 major source categories, adopted by the AAPCC in 1979, were scheduled to be fully implemented by 1981. VOCs are organic compounds which contribute to the formation of ozone, a pollutant which can cause eye and lung irritation, offensive odor, and damage to vegetation and which is responsible for the smog found in many highly urbanized areas.

Gasoline loading and storage facilities represented the category of industries in Alabama which were most widely impacted by VOC controls from the standpoint of number of facilities and expenditures for control equipment. During 1981 all of the 15 major bulk storage terminals regulated by the AAPCC completed installation of vapor recovery systems.

New Computer Model—Prior to construction for certain new major sources of air pollution, computer modeling is required to determine the impact that the industry's emissions will have on air quality at the proposed site. During 1981 the AAPCC staff developed a computer model for assessing a source's impact in a complex terrain. The AAPCC computer program is one of approximately 10 being evaluated by the Environmental Protection Agency as a possible national model.

Public Participation—During the year the AAPCC cooperated with the Alabama Department of Public Health and the Alabama Water Improvement Commission in sponsoring three regional workshops to aid the public in identifying environmental priorities. Workshops were held in Birmingham, Mobile and Montgomery. The workshops were designed to obtain ideas from the public on various environmental issues so that they can be summarized by program areas and submitted to the Environmental Protection Agency for funding.

Commission Appointment—A leading promoter of strong air pollution control legislation in the early 1970s was appointed to the commission in 1981. The Governor appointed Dr. Margaret Cameron McDonald to a four year term beginning in July.

Regulatory Revisions—Several hearings were scheduled during 1981 for the public to express opinions on the proposed changes to state air pollution control regulations. Subsequent to these hearings, the following amendments to the regulations were adopted.

PSD—Prevention of Significant Deterioration regulations were adopted by the commission January 29.

The purpose of PSD is to assure that industrial growth is compatible with the preservation of air quality in clean air areas, or those in which ambient levels are better than the national standards.

Alabama is one of only six states in the nation for which the Environmental Protection Agency has approved PSD regulations as meeting the mandates of the Clean Air Act Amendments of 1977.

New Sources and Hazardous Emissions—In 1976 the AAPCC incorporated into its regulations and assumed responsibility for enforcing standards for New Source Performance Standards (NSPS) and for National Emission Standards for Hazardous Air Pollutants (NESHAPS).

The Environmental Protection Agency has established NSPS for certain new and modified industries that constitute significant sources of air pollution. They include emission standards, notification and testing procedures, and monitoring and reporting requirements for individual industrial or source categories intended to reflect best demonstrated technology, taking costs into account. Twenty-three source categories were included in the standards adopted by the AAPCC in 1976.

On June 23 the commission incorporated eight additional categories of NSPS, representing standards established since 1976. These new categories include ferroalloy production, Kraft pulp mills, grain storage elevators and grain terminal elevators, stationary gas turbines, ammonium sulfate manufacturing, surface coating of automobiles and lightduty trucks, electric utility steam generating units, and storage vessels for petroleum liquids.

As with NSPS, EPA has established NESHAPS for pollutants which, as a result of scientific studies, are shown to be carcinogenic or mutagenic hazards. In June the AAPCC added vinyl chloride to the list of pollutants regulated under NESHAPS. Other pollutants regulated under these standards include asbestos, beryllium and mercury.

"Offset"—"Offset" regulations were revised during the year to reflect changes in the federal regulations necessitated by a court decision. These rules apply to construction of new sources or expansion of existing industries in nonattainment areas—areas in which ambient levels are being monitoried because pollutants exceed the health related national standards.

The regulations require that new emissions from major sources planning to construct or to modify in nonattainment areas be permitted only if a method could be found to offset or reduce emissions from existing sources in the area by more than an equivalent amount. "Major" was determined on the basis of potential emissions calculated before installation of pollution controls, with any source which has the potential to exceed 100 tons per year for any of the major pollutants being required to secure an "offset" prior to construction.

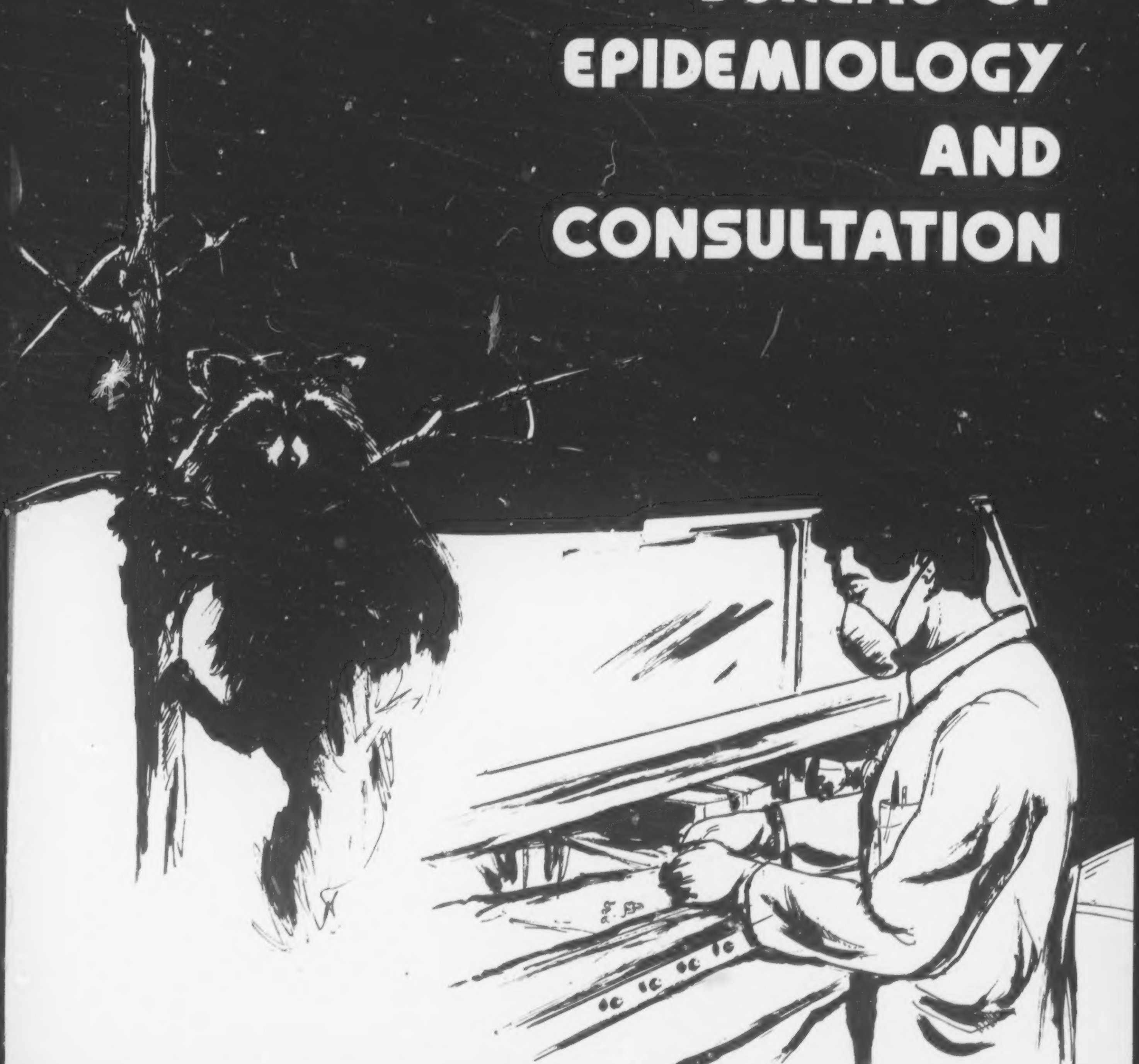
The change to the regulations adopted during 1981 defines "potential" as emissions after installation of controls; therefore certain smaller sources whose emissions would not significantly change the air quality were exempt.

VOCs—The Clean Air Act Amendments of 1977 require that all states implement regulations for the control of volatile organic compounds (VOCs) in all areas not classified as attainment for ozone. Although stationary sources do emit VOCs, automobiles and other mobile sources are the largest contributors to elevated levels of this pollutant. Consequently few states monitored for this pollutant on a routine basis except in major metropolitan areas. The designation of unclassified was required for areas in which ambient air monitoring had not been done or for which data were insufficient.

During 1980, the AAPCC established an ozone monitoring network in an attempt to define the attainment status of all portions of the state better. By mid-1981 ozone data had been compiled for a year—the period of time required to determine attainment status. Because of these data, some formerly unclassified areas were redesignated to attainment status.

On March 24 a revision to the regulations on VOCs was adopted which eliminated the requirement that VOC controls be installed by existing sources located in attainment areas which did not include an urban area (population greater than 200,000). Existing sources in such areas would not have the potential to cause a violation of the ozone standard, and new sources locating in an attainment area would be subject to PSD regulations which require installation of best available control technology.

BUREAU OF EPIDEMIOLOGY AND CONSULTATION



BUREAU OF EPIDEMIOLOGY AND CONSULTATION

The Bureau of Epidemiology and Consultation provides professional and technical assistance in investigating outbreaks or endemics of disease, implements control measures, and serves as epidemiologic liaison with other health department units and outside agencies.

The demand for epidemiologic services has increased markedly for several years. The 477 requests during 1981 is a 29.3 percent increase over 1980 and a 200 percent increase over 1979. In 1979 there were 159 requests for assistance or consultation and 369 requests in 1980. Of these 477 requests, 344 represented investigations and control measures for acute infectious disease outbreaks. Thirty requests were for investigation and elimination of environmental and occupational hazards or diseases caused by environmental contamination. The bureau received 50 requests for teaching or instructional activities and 53 requests for information.

Requests for consultation on rabies related problems made up the largest category of assistance. The bureau responded to 173 instances involving rabies and other zoonotic diseases and distributed 1,115 doses of Human Diploid Cell Rabies Vaccine. Requests from high risk groups for the Human Diploid Cell Vaccine as preexposure rabies immunization have increased dramatically. The Alabama Department of Public Health will continue to distribute this vaccine in the state until it is available through commercial channels.

Assistance with controlling food and waterborne illnesses comprised the next largest category of requests. The bureau investigated or assisted in investigating 53 outbreaks of food and waterborne illnesses and other illnesses caused by the ingestion of contaminated substances. Institutions, such as hospitals, nursing homes, schools and church groups, were involved in 10 of these outbreaks. Two incidences of illness associated with the consumption of oysters were investigated.

GRAPH 6-1
LABORATORY CONFIRMED RABIES
ALL SPECIES
1950-1981

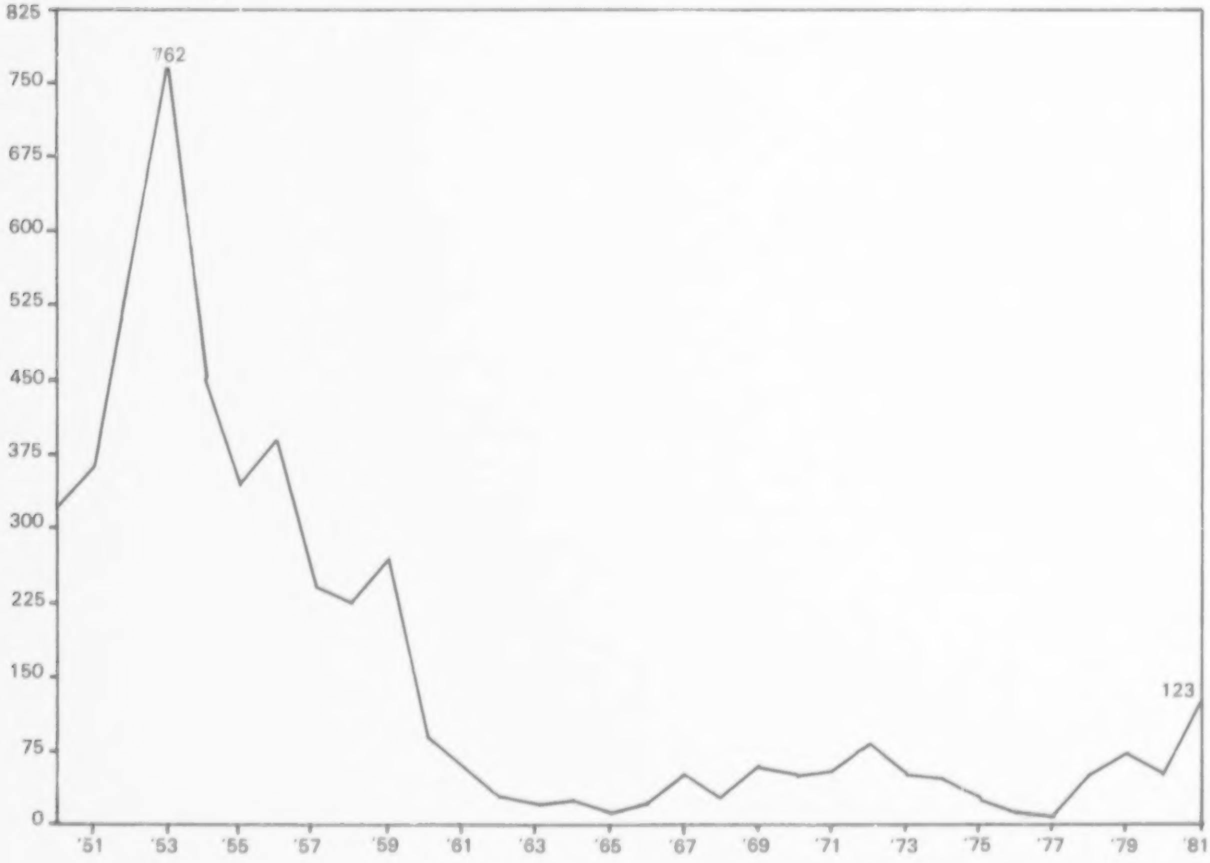


TABLE 6-1
SEASONAL OCCURRENCE OF DISEASES

Diseases	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Tuberculosis	58	46	50	47	49	62	45	56	50	93	41	43
Syphilis	101	83	64	87	59	81	80	85	119	77	115	111
Gonorrhea	2,151	1,718	2,007	1,788	2,213	2,243	1,777	2,949	1,924	2,577	2,103	1,728
Chancroid												
Amebic dysentery			1		2	1						
Chickenpox	230	133	357	311	281	57	9	8	6		5	13
Diphtheria												
Encephalitis	1	1	1	2	2		4	6	1	3	1	1
German measles						1						
Hepatitis, inf.	22	9	12	3	16	9	29	7	22	10	7	9
Hepatitis, serum	30	13	17	6	24	24	22	19	42	27	46	19
Hepatitis, unspec	9	1	6	5	9	7	5	6	11	9	3	7
Hep., Non-A, Non-B			1	4	5	3	1	1	4	4	5	4
Influenza	4,198	6,562	257	76	31	26	15	20	1	4	5	3
Malaria				1	1	1	4	2			1	
Measles						2						
Meningitis, aseptic	50	17	18	4	16	16	19	44	55	39	38	10
Meningococcal, men.	8	9	9	10	7	5	6	3	2	3	5	1
Mumps	2	3	4	2	1		1	2	1	2	1	
Pellagra												
Pneumonia	674	997	586	639	551	567	316	427	299	421	278	486
Poliomyelitis												
Rheumatic fever			1	1	1	3		1	1			
Rheumatic heart		1		10	10	7	8	6	7	9	6	4
Rocky Mt. spotted fev.	1				1	1	3	9	5	2	1	1
Salmonella	27	21	38	31	64	46	48	90	87	77	30	44
Scarlet fever*	237	227	196	182	213	180	115	148	97	206	138	167
Shigella	5	3	5	3	13	6	1	8		12		5
Smallpox												
Tetanus			1				1					
Tularemia												
Typhoid fever		1	1							2	1	
Typhus fever												
Undulant fever						1		1	2			
Whooping cough												

*Includes strep. throat

Evaluation and control of central nervous system diseases, including meningitis and encephalitis, ranked third in number of requests for assistance. This bureau investigated or assisted in investigating 46 cases or outbreaks of this type of disease. The bureau coordinated control measures, including the provision of prophylactic antibiotics for contacts.

The fourth largest group of requests for assistance consisted of 29 requests for the evaluation of cases of hepatitis. Hundreds of people received immune globulin prophylaxis. Control of hepatitis B in hospitals and hemodialysis units stimulated five inquiries. During 1981 the spread of hepatitis A continued to be a problem. Three outbreaks of hepatitis among day care center employees, children and their parents were investigated. Three additional outbreaks were investigated at schools and universities within the state. Six investigations involved hepatitis in jails, prisons and other detention facilities.

Providing consultation on hospital infection control and related problems continued to be a commitment of the Bureau of Epidemiology and Consultation. The bureau is fostering an affective working relationship with hospital infection control nurses and with the Alabama Chapter of the Association of Practitioners of Infection Control to make it easier to give assistance in controlling the spread of infection within institutions. Perhaps this type liaison will result in establishing a system of hospital based reporting of many diseases and thus enhance perception of what diseases are prevalent throughout the state.

Histoplasmosis continued to be an endemic problem in the state. During 1981 nine requests for assistance with this problem reached the Bureau of Epidemiology and Consultation. Procedures for identification of contaminated roosts, protocol for decontaminating these areas and consultation on patient evaluation were provided upon request.

The spread of disease in day care centers and nursery schools continued to distress the bureau. Six outbreaks of diseases, including the three of hepatitis were investigated.

During 1981 the Alabama Legislature passed Act 81-439 which improved the mechanism of reporting communicable diseases. Many diseases and conditions which do not require public health intervention and much antiquated terminology have been removed. The State Committee of Public Health now has control over designating those diseases which have to be reported. Copies of the *Rules and Regulations Governing the Enumeration and Reporting of Notifiable Diseases* have been distributed to health care providers, health care facilities, independent laboratories, local health departments, and other health related individuals and organizations. Notifiable Disease Case Report cards were included in this distribution.

The "Communicable Disease Report," which the bureau continued to publish, provided information on diseases which are currently threatening Alabama citizens and provided features and short articles on prevalent diseases and disease trends. This monthly report was distributed to health care providers and others interested in this type information. In addition the Division of Disease Registries circulated a quarterly cumulative report on the prevalence of communicable diseases in each county of the state.

Protocols for investigating specific diseases and for initiating control measures are being developed on a continuing basis. These enable the county health departments to proceed with routine disease control matters in a more expeditious manner, and they provide uniform disease control measures throughout the state.

The Bureau of Epidemiology and Consultation must coordinate its activities with all other units of the State Health Department as well as other state, local and federal agencies. The bureau works especially consistant with the Clinical Laboratory Administration, the Environmental Health Administration and local health departments. The laboratory supports program goals with diagnostic services and consultations. In cases of environmental contamination, the Environmental Health Administration is reponsible for the technical and engineering aspects while the bureau provides information on medical, toxicologic and epidemiologic effects. The cooperation of local health departments makes it possible to achieve program goals.

TABLE 6-2
CASES OF COMMUNICABLE DISEASES

Diseases	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Tuberculosis	985	918	790	785	780	824	704	672	644	665	640
Syphilis	445	405	442	519	542	432	350	421	577	893	1,062
Gonorrhea	10,852	15,934	19,704	21,673	24,418	25,026	24,936	25,082	25,012	24,464	25,178
Chancroid	2	6	2	2		1					
Amebic dysentery	1	3	2	4	1	4	1	5	2	7	4
Chickenpox	538	535	904	570	1,018	659	1,060	915	525	792	1,410
Diphtheria	17	7	6								
Encephalitis	10	28	19	9	78	87	12	16	28	12	23
German measles	233	63	210	66	23	2	110	25	44	3	1
Hepatitis, inf.	384	382	478	323	304	218	212	224	267	237	155
Hepatitis, serum	39	101	195	186	259	221	175	168	236	273	289
Hepatitis, unspec.				42	43	35	74	57	120	138	78
Hep., Non-A, Non-B											32
Influenza	1,125	23,697	2,013	5,419	6,309	1,471	3,123	3,809	3,703	350	11,198
Malaria	23	18	5		6	2	6	2	6	8	10
Measles	2,035	161	14	21	5		79	102	129	22	2
Meningitis, aseptic	118	86	139	59	159	136	183	148	289	537	326
Meningococcal, men.	36	20	19	13	32	40	61	52	41	58	68
Mumps	1,044	860	758	618	454	368	400	437	28	36	19
Pellagra		1									
Pneumonia	3,687	3,806	3,760	4,163	4,012	3,879	3,904	4,564	4,988	5,349	6,241
Poliomyelitis				1							
Rheumatic fever	89	85	256	70	710	76	407	11	11	13	8
Rheumatic heart	286	186	768	172	279	150	134	138	79	73	68
Rocky Mt. spotted fev.	9	20	28	14	10	15	20	13	21	18	24
Salmonella	275	346	404	328	329	382	425	486	474	534	603
Scarlet fever*	5,201	6,313	4,686	6,244	6,033	6,230	3,888	4,702	3,535	1,730	2,106
Shigella	115	98	121	130	208	114	125	246	121	157	61
Smallpox											
Tetanus	4	3	4	1	1	2	3		5	4	2
Tularemia	3	1		2			1	1		2	
Typhoid fever	8	11	14	4	3	1	1	3	8	4	5
Typhus fever								1			
Undulant fever	2	2		1	3	3	2	3	3	6	4
Whooping cough	85	30	15	20	46	6	4	3	4	3	

*Includes strep. throat

TABLE 6-3
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Amebic Dysentery			Juvenile Onset Diabetes			Histoplasmosis			Legionellosis		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	2	1	4	210	91	306	33	3	72	6	1	7
PHA 1	Colbert				12	3	15						
	Cullman												
	Franklin				3		3			1			
	Jackson				1		1						
	Lauderdale				4	2	6						
	Lawrence				1		1						
	Limestone				1		2						
	Madison				2		3	2		10			
	Marion				1		1						
	Marshall				4		4						
	Morgan	1		1						5			
	Winston				1		1			1			
PHA 2	Bibb												
	Fayette				1		1						
	Greene												
	Hale												
	Lamar												
	Pickens				2		2						
	Tuscaloosa				6	2	8	6		9			
PHA 3	Blount												
	Chilton				2		2						
	Jefferson				46	23	69	9	1	13	2		2
	St. Clair				3		3						
	Shelby				3		3						
	Walker				2	1	3						
PHA 4	Calhoun				2		2						
	Chambers				4	7	11						
	Cherokee												
	Clay				1		1						
	Cleburne												
	Coosa												
	DeKalb				1		1						
	Etowah								1	1			
	Randolph					1	1						
	Talladega				4	5	9						
	Tallapoosa									1			
PHA 5	Autauga							3		4			
	Barbour				1		1	1		1			
	Bullock												
	Butler				1		1						
	Coffee						1						
	Covington												
	Crenshaw												
	Dale				1		1						
	Elmore							1		1			
	Geneva												
	Henry										1		1
	Houston			1						2	1		1
	Lee												
	Lowndes												
	Pike												
	Macon												
	Montgomery	1		1	3		4	10		18	1		1
	Russell												
PHA 6	Baldwin		1	1									
	Choctaw												
	Clarke				1		1						
	Conecuh												
	Dallas				79	45	125		1	2	1		1
	Escambia												
	Marengo				3	1	4						
	Mobile				4		4	1		2		1	1
	Monroe												
	Perry				6	1	7						
	Sumter									1			
	Washington												
	Wilcox				4		4						

Total includes reports not stating race

TABLE 6-4
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Chickenpox			Encephalitis			German Measles			Influenza		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	56	28	1,410	19	4	23	1		1	342	48	11,198
PHA 1	Colbert												1
	Cullman												
	Franklin				1		1						
	Jackson												100
	Lauderdale		1	82									436
	Lawrence							1		1			2
	Limestone			1	1		1						12
	Madison	12	6	18	2		2				24	2	28
	Marion												10
	Marshall	1		1							90		91
	Morgan	5		5									
	Winston	1		1							18		18
PHA 2	Bibb												
	Fayette										8	1	10
	Greene												
	Hale												
	Lamar			3									635
	Pickens	4		83									411
	Tuscaloosa	3		10							11		711
PHA 3	Blount												75
	Chilton												613
	Jefferson	8	7	16	3	1	4				86	14	126
	St. Clair												429
	Shelby	1		57							6		471
	Walker			6	2		2				1		29
PHA 4	Calhoun			1									
	Chambers	1		18									134
	Cherokee			27									
	Clay			4									455
	Cleburne												
	Coosa												
	DeKalb	1		1	1		1				38	1	55
	Etowah			4	1		1						237
	Randolph												
	Talladega										28	9	37
	Tallapoosa												500
PHA 5	Autauga												
	Barbour	1		67									757
	Bullock												23
	Butler												
	Coffee												
	Covington			1									
	Crenshaw												
	Dale	1		1									
	Elmore	4	2	9									9
	Geneva												
	Henry												200
	Houston	1		164							2	2	105
	Lee	1		157									135
	Lowndes												
	Pike			2									
	Macon												
	Montgomery	1	1	38		2	2					1	40
	Russell			1									107
PHA 6	Baldwin	1		9	5		5						
	Choctaw												4
	Clarke										12	4	16
	Conecuh												
	Dallas										2	1	18
	Escambia			4									3
	Marengo			6								1	255
	Mobile	9	9	500	3		3				13	9	3,759
	Monroe		2	45									39
	Perry					1	1						16
	Sumter			67									70
	Washington			1									17
	Wilcox										3	3	6

Total includes reports not stating race

TABLE 6-5
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Hepatitis, Infectious			Hepatitis, Serum			Hepatitis, Unspecified			Hepatitis, Non-A/Non-B		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	113	42	155	155	130	289	55	22	78	29	3	32
PHA 1	Colbert				1		1						
	Cullman	1		1	3		3	2		2	1		1
	Franklin												
	Jackson												
	Lauderdale										1		1
	Lawrence		1	1									
	Limestone	2		2	5	1	6	2		2	1		1
	Madison	6		6	12	2	14	1	1	2			
	Marion												
	Marshall	6		6	3		3	8		8	2		2
	Morgan	8		8	13		13						
	Winston	1		1	1		1	1		1			
PHA 2	Bibb	1		1									
	Fayette	1		1	1		1						
	Greene		1	1		1	1						
	Hale												
	Lamar												
	Pickens				1		1		1	1			
	Tuscaloosa	1	2	3	3	3	6						
PHA 3	Blount	1		1	3		3						
	Chilton	1		1									
	Jefferson	19	6	25	40	51	95	17	11	29	13	1	14
	St. Clair	1		1				2		2	4		4
	Shelby	1		1	4		4						
	Walker				2		2	2		2			
PHA 4	Calhoun	1		1	8		8	4		4			
	Chambers				2	1	3						
	Cherokee												
	Clay				1		1						
	Cleburne	2		2									
	Coosa												
	DeKalb	1		1									
	Etowah	1	2	3	2		2	7	1	8	3		3
	Randolph				1		1						
	Talladega	5	2	7	1		1	1	1	2			
	Tallapoosa												
PHA 5	Autauga	1	9	10	1		1		1	1			
	Barbour		1	1									
	Bullock		1	1		1	1						
	Butler		1	1									
	Coffee	1		1	1	1	2						
	Covington				2	2	4						
	Crenshaw				1		1						
	Dale	1		1	1		1				1		1
	Elmore	1		1	1		1	1		1			
	Geneva												
	Henry					1	1						
	Houston	2		2	4		4						
	Lee							1		1			
	Lowndes												
	Pike		1	1				1		1			
	Macon					2	2						
	Montgomery	2	1	3	3	11	14	1		1			
	Russell	1	1	2									
PHA 6	Baldwin		1	1	3	1	4						
	Choctaw												
	Clarke	1		1									
	Conecuh							1	1	2		1	1
	Dallas	1		1					3	3			
	Escambia	5		5	2		2						
	Marengo												
	Mobile	37	12	49	28	52	80	2	1	3	3	1	4
	Monroe							1	1	2			
	Perry												
	Sumter												
	Washington				1		1						
	Wilcox												

Total includes reports not stating race

TABLE 6-6
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Malaria			Leptospirosis			Psittacosis			Tularemia		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	7	2	10			1			0			0
PHA 1	Colbert												
	Cullman												
	Franklin												
	Jackson												
	Lauderdale												
	Lawrence												
	Limestone												
	Madison	2	1	3									
	Marion												
	Marshall												
	Morgan	1	1	2									
	Winston												
PHA 2	Bibb												
	Fayette												
	Greene												
	Hale												
	Lamar												
	Pickens												
	Tuscaloosa	1		1									
PHA 3	Blount												
	Chilton												
	Jefferson	1		1			1						
	St. Clair												
	Shelby	1		1									
	Walker												
PHA 4	Calhoun												
	Chambers												
	Cherokee												
	Clay												
	Cleburne												
	Coosa												
	DeKalb												
	Etowah												
	Randolph												
	Talladega												
	Tallapoosa												
PHA 5	Autauga												
	Barbour												
	Bullock												
	Butler												
	Coffee												
	Covington												
	Crenshaw												
	Dale	1		1									
	Elmore												
	Geneva												
	Henry												
	Houston												
	Lee												
	Lowndes												
	Pike												
	Macon												
	Montgomery			1									
	Russell												
PHA 6	Baldwin												
	Choctaw												
	Clarke												
	Conecuh												
	Dallas												
	Escambia												
	Marengo												
	Mobile												
	Monroe												
	Perry												
	Sumter												
	Washington												
	Wilcox												

Total includes reports not stating race

TABLE 6-7
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Measles			Menincococcal Meningitis			Meningitis, Aseptic			Mumps		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State		2	2	56	11	68	228	94	326	7	4	19
PHA 1	Colbert				1		1						
	Cullman				2		2	2		2			
	Franklin				1		1						
	Jackson												
	Lauderdale												2
	Lawrence				1		1	1		1			
	Limestone							7		7			1
	Madison				5		6	5	7	13	2		2
	Marion				1		1						
	Marshall				2		2	22	1	23			
	Morgan				1	1	2	1		1			
	Winston							1		1			
PHA 2	Bibb												
	Fayette							2		2			
	Greene					1	1						
	Hale												
	Lamar												
	Pickens												
	Tuscaloosa				1	1	2	1	1	2	2		2
PHA 3	Blount				1		1	2		2			
	Chilton				1		1	2		2			
	Jefferson				15	4	19	81	56	141			
	St. Clair				1		1	2		2		1	1
	Shelby							10		11			
	Walker				5		5	8	1	9			
PHA 4	Calhoun				2		2	2		2			
	Chambers												
	Cherokee								1	1			
	Clay												
	Cleburne												
	Coosa												
	DeKalb							2		2			
	Etowah				1		1	19		19			2
	Randolph				1		1						
	Talladega							2	3	5			
	Tallapoosa												
PHA 5	Autauga				1		1	1		1			
	Barbour				1		1						
	Bullock												
	Butler												
	Coffee												
	Covington				1		1						
	Crenshaw							1		1			
	Dale												
	Elmore				1		1						
	Geneva					1	1		1	1			
	Henry												
	Houston				1		1						1
	Lee												
	Lowndes								1	1			
	Pike												
	Macon												
	Montgomery		2	2	2		2	3	3	6			1
	Russell							1		1			1
PHA 6	Baldwin				1		1	4	1	5	1		1
	Choctaw												
	Clarke												
	Conecuh										1		1
	Dallas								1	1			
	Escambia				1		1	1		1			
	Marengo												
	Mobile				1	1	2	39	17	56	1	3	4
	Monroe							1		1			
	Perry												
	Sumter												
	Washington					1	1	1		1			
	Wilcox					1	1						

Total includes reports not stating race

TABLE 6-8
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Pneumonia			Rheumatic Fever			Rheumatic Heart			Rocky Mt. Spotted Fever		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	2,652	982	6,241	6	2	8	52	16	68	21	3	24
PHA 1	Colbert	4	3	25	1		1						
	Cullman	2	3	5				1		1	1		1
	Franklin	1		2									
	Jackson							1	1	2			
	Lauderdale			7				1		1	2		2
	Lawrence												
	Limestone	6		46							2		2
	Madison	38	2	51				2	1	3		1	1
	Marion	6		6									
	Marshall	413	4	418	1		1	3		3	2		2
	Morgan	2	23	108							1		1
	Winston	152		152				1		1			
PHA 2	Bibb	1		1									
	Fayette	75	13	91									
	Greene								1	1			
	Hale												
	Lamar												
	Pickens	1		1									
	Tuscaloosa		1	1					1	1	1		1
PHA 3	Blount							1		1			
	Chilton	6		6				2		2			
	Jefferson	1,453	529	2,104	1	1	2	12	9	21	1	1	2
	St. Clair	1	1	3				2		2			
	Shelby	39	6	83	1		1	1		1	2		2
	Walker	4		4				2		2	1		1
PHA 4	Calhoun				1		1	1		1	1		1
	Chambers	122	99	229		1	1						
	Cherokee												
	Clay							1		1			
	Cleburne												
	Coosa	1		1									
	DeKalb							5		5			
	Etowah	1		335				1		1			
	Randolph		2	2									
	Talladega	88	77	169				1	1	2			
	Tallapoosa	10	5	15									
PHA 5	Autauga	2	2	4				1		1			
	Barbour			107									
	Bullock												
	Butler		1	1									
	Coffee	1		1									
	Covington	1		1				2		2			
	Crenshaw		1	1									
	Dale	2		2									
	Elmore	14	11	126									
	Geneva												
	Henry		1	1									
	Houston	2		5									
	Lee			1									
	Lowndes		1	1				1		1	1		1
	Pike	2		2									
	Macon	1		1									
	Montgomery	86	64	157	1		1	1		1			
	Russell							1		1			
PHA 6	Baldwin	1		1				2		2			
	Choctaw							1		1			
	Clarke												
	Conecuh												
	Dallas	27	93	132									
	Escambia	1		1									
	Marengo			131									
	Mobile	61	29	1,659				5	2	7	2	1	3
	Monroe	1		1									
	Perry		2	8									
	Sumter			40									
	Washington	1		1									
	Wilcox	1	1	2									

Total includes reports not stating race

TABLE 6-9
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Salmonella			Scarlet Fever*			Shigellosis			Tetanus		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	38	21	603	228	124	2,106	13	1	61	2		2
PHA 1	Colbert	1		8	11	4	81			2			
	Cullman	1	1	2	6		6						
	Franklin												
	Jackson	1		1									
	Lauderdale			8			75						
	Lawrence						1						
	Limestone			1			36				1		1
	Madison	1	1	19	118	76	233						
	Marion												
	Marshall			1									
	Morgan			9									
	Winston	1		1	18		18						
PHA 2	Bibb												
	Fayette				11		20				1		1
	Greene												
	Hale					2	2						
	Lamar												
	Pickens			1									
	Tuscaloosa	11	5	48	2		2		1	4			
PHA 3	Blount												
	Chilton	1		1									
	Jefferson	2	7	232	48	36	414			16			
	St. Clair						1						
	Shelby		1	1	1		9						
	Walker	1		5	1		1	1		1			
PHA 4	Calhoun			2						2			
	Chambers		1	6	2	1	28						
	Cherokee												
	Clay				1		1						
	Cleburne						1						
	Coosa												
	DeKalb												
	Etowah			16			60						
	Randolph				1		1						
	Talladega				1	1	3						
	Tallapoosa												
PHA 5	Autauga	1		1									
	Barbour					1	1						
	Bullock												
	Butler												
	Coffee			1									
	Covington				1		1						
	Crenshaw												
	Dale		1	4									
	Elmore			7	1		16						
	Geneva												
	Henry	2		2									
	Houston	1		24			140		1	6			
	Lee			1			1						
	Lowndes												
	Pike			1									
	Macon			1									
	Montgomery	1	1	56	1	1	2	1		11			
	Russell			3			2						
PHA 6	Baldwin			4			14						
	Choctaw												
	Clarke		1	1									
	Conecuh												
	Dallas			4	2	1	3						
	Escambia	2		4	1		1						
	Marengo												
	Mobile	8	2	115	1		726	11	1	19			
	Monroe	1		1									
	Perry												
	Sumter						7						
	Washington												
	Wilcox												

Total includes reports not stating race

*Includes Strep. Throat

TABLE 6-10
COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE

		Tuberculosis			Typhoid Fever			Undulant Fever			Whooping Cough		
		White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total
	Entire State	319	321	640	1	2	5	3	1	4			0
PHA 1	Colbert	4		4									
	Cullman	3		3									
	Franklin	4		4	1		1						
	Jackson	6	2	8									
	Lauderdale	18	4	22				1		1			
	Lawrence	2	3	5									
	Limestone	13	3	16									
	Madison	19	23	42									
	Marion	3		3									
	Marshall	14	1	15									
	Morgan	6	1	7									
	Winston	3		3									
PHA 2	Bibb	2		2									
	Fayette												
	Greene		1	1									
	Hale	3		3									
	Lamar	5		5									
	Pickens	3	3	6									
	Tuscaloosa	18	18	36									
PHA 3	Blount	4	1	5									
	Chilton	3	1	4									
	Jefferson	43	85	128			1	1	1	2			
	St. Clair	9	1	10									
	Shelby	3	3	6									
	Walker	3	1	4									
PHA 4	Calhoun	8	14	22									
	Chambers		1	1									
	Cherokee	1		1									
	Clay		2	2									
	Cleburne	1	1	2									
	Coosa	1	1	2									
	DeKalb	7		7									
	Etowah	22	11	33									
	Randolph	1	1	2									
	Talladega	5	8	13									
	Tallapoosa	4	1	5									
PHA 5	Autauga	1		1									
	Barbour		1	1									
	Bullock	1		1									
	Butler		1	1									
	Coffee	2	1	3									
	Covington	3	1	4									
	Crenshaw		1	1									
	Dale												
	Elmore		3	3									
	Geneva												
	Henry												
	Houston	6	7	13									
	Lee	3	7	10									
	Lowndes		2	2									
	Pike		2	2									
	Macon		4	4									
	Montgomery	11	16	27									
	Russell	2	4	6									
PHA 6	Baldwin	4	3	7									
	Choctaw	1	5	6									
	Clarke	4	4	8									
	Conecuh	1		1									
	Dallas	3	21	24				1		1			
	Escambia	7	2	9									
	Marengo	2	1	3									
	Mobile	25	41	66		2	3						
	Monroe												
	Perry												
	Sumter	1	3	4									
	Washington	1		1									
	Wilcox												

Total includes reports not stating race

TABLE 6-11
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Amebic Dysentery					Leptospirosis					Psittacosis					Typhoid Fever					Undulant Fever				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
0- 4	1				1																				
5- 9																		1		1					
10-14																			1	1					
15-19				1	1																				
20-24																					1				1
25-34																									
35-44																									
45-54		1			1																1				1
55-64																1				1	1				1
65-74																									
75+																							1		1
N.S.																									
TOTAL BY RACE	2		1													1		2			3		1		
TOTAL	3					0										3					4				
UNCLASSI-FIED	1					1										2					0				
GRAND TOTAL	4					1					0					5					4				

TABLE 6-12
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Encephalitis					Hepatitis Infectious					Hepatitus, Serum					Hepatitis Unspecified					Hepatitis Non A/Non B				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
0- 4	4				4				1	1	1	1			2			1		1					
5- 9	2	1			3	2	1	1		4	1	1		1	3										
10-14	1			1	2	4	3	3	1	11	1	1		1	3		1			1					
15-19	1	1	3		5	7	8	9	1	25	8	12	12	9	41	1	2		3	6	1	1			2
20-24		2			2	25	11	4	3	43	17	23	24	22	86	6	4	3		13	3	3		1	7
25-34	1	1			2	14	2	5	6	27	36	16	29	13	94	14	7	6	3	30	2	4			6
35-44						5	5	1		11	4	9	8	6	27	3		1		4	3	3	1		7
45-54	1	1			2	3	9	2	1	15	4	5	2		11	1	5	1		7					
55-64	1	1			2	5	1		2	8	5	5	2	1	13		1			1		1	1		2
65-74						2	1	1		4	1	2			3	3	3	1	2	9	3	2			5
75+		1			1	3	2			5	1	1			2	3	1	1		5	1	2			3
N.S.									1	1															
TOTAL BY RACE	19		4			113		42			155		130			55		22			29		3		
TOTAL	23					155					285					77					32				
UNCLASSIFIED	0					0					4					1					0				
GRAND TOTAL	23					155					289					78					32				

TABLE 6-13
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Influenza					Malaria					Meningococcal Meningitis					Meningitis Aseptic					Pneumonia				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
0- 4	8	6	4	3	21						11	19	1	5	36	29	26	18	19	92	178	130	141	96	545
5- 9	7	5			12						3	1			4	15	10	11	4	40	45	38	21	17	121
10-14	3	2	2	1	8							4			4	18	13	5	4	40	26	16	13	8	63
15-19	6	10		3	19						2	1	1		4	16	16	10	3	45	31	10	10	8	59
20-24	9	17	2	3	31		2			2	1			2	3	13	13	2	2	30	23	28	8	12	71
25-34	19	27	3	4	53	2	1	1		4	2		1	1	4	26	17	3	8	54	61	74	33	32	200
35-44	9	13	3	1	26						3	3			6	5	6	2	1	14	67	56	31	24	178
45-54	15	28		1	44	1				1	1	1			2	2				2	101	116	33	32	282
55-64	21	32	2	2	57	1				1		2			2	1			1	2	208	154	54	43	459
65-74	25	28	2	8	63						1	1			2		1			1	284	211	88	58	641
75+	17	34	2	2	55														1	1	397	394	113	105	1,009
N.S.		1			1			1		1							1			1	3	1	1	1	6
TOTAL BY RACE	342		48			7		2			56		11			228		94			2,652		982		
TOTAL	390					9					67					322					3,634				
UNCLASSIFIED	10,808					1					1					4					2,607				
GRAND TOTAL	11,198					10					68					326					6,241				

TABLE 6-14
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Rocky Mt. Spotted Fever					Salmonella					Shigella					Tetanus					Tuberculosis				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
0- 4	4				4	9	4	7	7	27	3	1	1		5						1		3	8	12
5- 9	4	1			5	2	3	2		7	2			1	3								1	2	3
10-14	2		1		3	2				2	1				1							1	1		2
15-19	3				3				1	1	1	1			2						3	1	3	3	10
20-24	1	1	1		3	2	1			3	1	1			2						3	3	7	7	20
25-34	1		1		2	4	1	1		6	1	1			2						10	12	26	7	55
35-44						2	1			3											21	4	37	5	67
45-54	1	1			2	1	2		1	4				1	1						28	6	39	12	85
55-64	1				1		2			2						1				1	42	8	27	10	87
65-74							2	1		3						1				1	55	14	33	11	113
75+		1			1																39	31	27	16	113
N.S.									1	1											26	11	24	12	73
TOTAL BY RACE	21		3			38		21			13		3			2					319		321		
TOTAL	24					59					16					2					640				
UNCLASSI-FIED	0					544					45					0					0				
GRAND TOTAL	24					603					61					2					640				

TABLE 6-15
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Chickenpox					German Measles					Histoplasmosis					Legionellosis					Measles				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
Under 1	1	3		1	5																				
1	1		2	2	5	1				1															
2	2	2	2	3	9																				
3	3	4	1	1	9																				
4		1			1																			1	1
5	2			2	4																				
6	4	3			7																			1	1
7	2	3	2	1	8																				
8	3	4			7						1				1										
9	2	3	2		7																				
10	1	1	1	1	4							1		1	2										
11	2				2																				
12		1			1																				
13	1				1						1				1										
14	1				1																				
15-19	1		1	1	3						2				2										
20-24	1	2	3		6						2				2										
25-34		2		1	3						5	3			8	1				1					
35-44			1		1						4	2			6	1				1					
45-54											3			1	4	1				1					
55-64											5				5										
65-74											2		1		3	1	1	1		3					
75+												1			1	1				1					
N.S.											1				1										
TOTAL BY RACE	56		28			1					33		3			6		1					2		
TOTAL	84					1					36					7					2				
UNCLASSIFIED	1,326					0					36					0					0				
GRAND TOTAL	1,410					1					72					7					2				

TABLE 6-16
DISEASE INCIDENCE BY AGE GROUPS

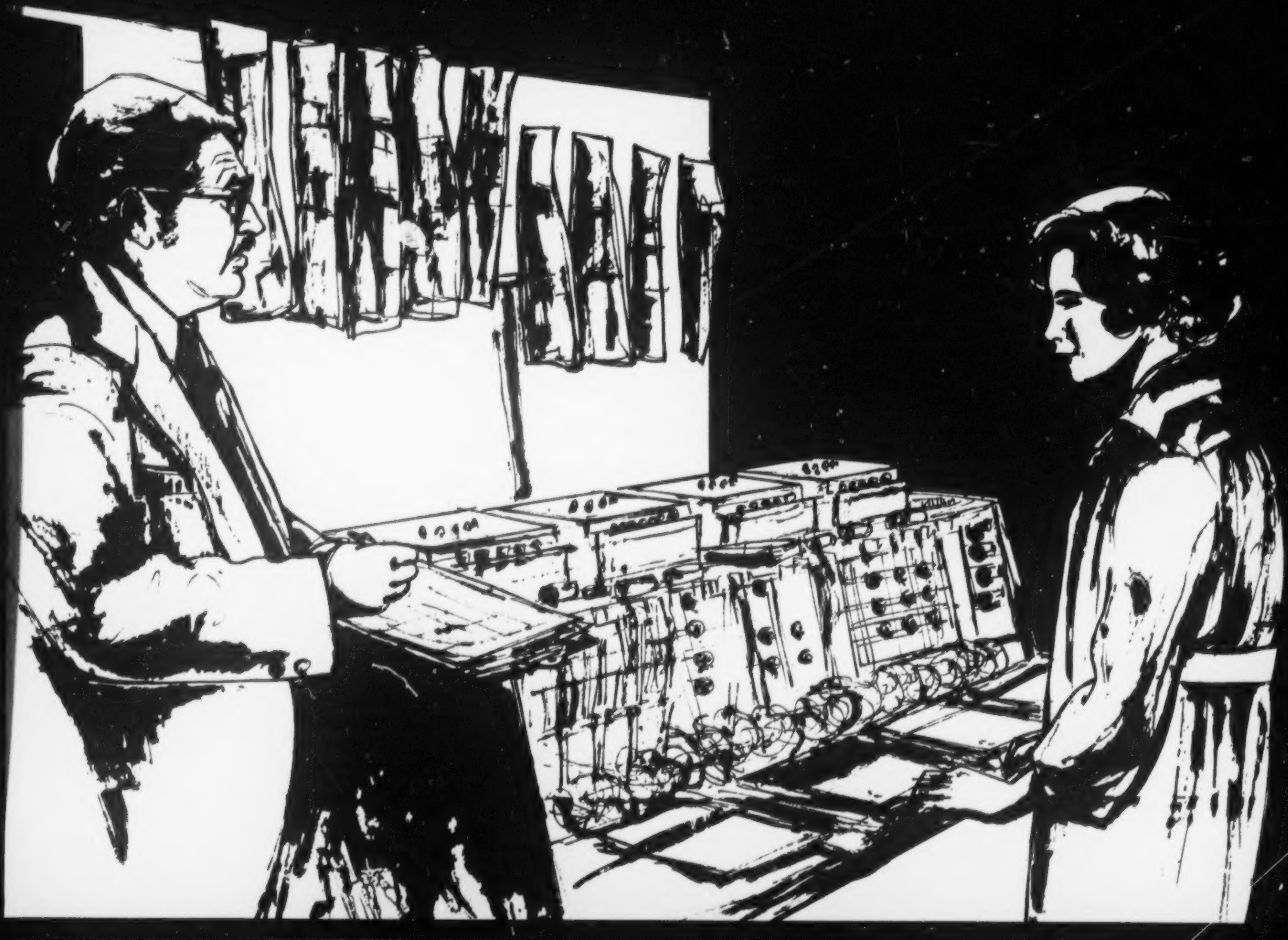
AGE GROUP	Mumps					Rheumatic Heart					Rheumatic Fever					Scarlet Fever*					Whooping Cough				
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
Under 1																2	2	1	1	6					
1			1		1											3	3		3	9					
2		1			1											3	6	1	1	11					
3	1				1											4	2	6	3	15					
4		1			1											3	4	3	4	14					
5			1	1	2											11	8	3	3	25					
6																7	7	3	3	20					
7	1				1											12	4	1	7	24					
8																2	4	5	6	17					
9		1			1											4	7	4	7	22					
10	1				1											3	2	4	2	11					
11																5	3	1	2	11					
12																7	1	2	2	12					
13																3	4	4	1	12					
14																1	1			2					
15-19							1		1	2		1	1		2	6	8	5	10	29					
20-24			1		1		1			1		1		1	2	13	6	1	10	30					
25-34						2	1	1		4	1		1		2	9	21	4	3	37					
35-44	1				1							1			1	6	9		4	19					
45-54							1			1	3	4		5	12	2	4		1	7					
55-64											4	9		2	15	1	2			3					
65-74											5	7	2	2	16		4	1		5					
75+											3	12	1	1	17		1	1		2					
N.S.											1				1	4	4		1	9					
TOTAL BY RACE	7		4			6		2			52		16			228		124							
TOTAL	11					8					68					352									
UNCLASSIFIED	8					0					0					1,754									
GRAND TOTAL	19					8					68					2,106					0				

*Includes Strep. Throat

TABLE 6-17
DISEASE INCIDENCE BY AGE GROUPS

AGE GROUP	Juvenile Onset Diabetes					Tularemia																			
	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total	White		Nonwhite		Total
	M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F		M	F	M	F	
Under 1	3				3																				
1																									
2	2	1	1		4																				
3			1		1																				
4		2			2																				
5	3		1		4																				
6	1	2			3																				
7		1			1																				
8			1		1																				
9	2	4		1	7																				
10	2	3		2	7																				
11	5	3		1	9																				
12	3	2			5																				
13	1	6		2	9																				
14	5	2			7																				
15-19	9	13	8	7	37																				
20-24	5	1	4	1	11																				
25-34	10	10	7	7	34																				
35-44	9	9	2	10	30																				
45-54	6	6	1	7	20																				
55-64	9	10		10	29																				
65-74	14	20	3	6	43																				
75+	7	19	1	5	32																				
N.S.				2	2																				
TOTAL BY RACE	210		91																						
TOTAL	301																								
UNCLASSIFIED	5																								
GRAND TOTAL	306					0																			

BUREAU OF LICENSURE AND CERTIFICATION



BUREAU OF LICENSURE AND CERTIFICATION

During the 1981 calendar year the Bureau of Licensure and Certification continued to function as the single state survey agency to certify health care providers for participation in the Medicare and Medicaid programs. Other responsibilities include administration of the State Licensure Program, Civil Rights Compliance, Hearing Aid Dealer Licensing and Drug Imprint Programs.

Reduced federal funding for Medicare certification activities necessitated a 33 percent reduction in personnel and restructuring of priorities to accomplish program goals. Further reduction in funds is anticipated because of budgetary constraints of the federal government.

There were no major funding or programatic changes initiated with other state administered programs.

Act 389, which the Governor signed into law on May 5, 1981, mandates that drug products in finished solid oral dosage form for which a prescription is required by federal law be clearly and prominently marked. An individual symbol, number, company name, words, letters, marking, National Drug Code or any combination of these identifying the drug product and the manufacturer or distributor must be imprinted on any drug product manufactured or commercially distributed within Alabama.

Inquiries about the law have been directed to the Bureau of Licensure and Certification. Manufacturers' requests for exemptions have been referred to the State Board of Health. As of January 15, 1982, twelve exemptions and four temporary exemptions have been requested. Requests have usually been for more than one drug product.

Division of Certification

The Bureau of Licensure and Certification determines eligibility of health facilities, agencies, and individuals and recommends certification for participating in the Medicare and Medicaid programs to the appropriate government agencies. The bureau has an agreement with the Secretary of the Department of Health and Human Services for certification for Medicare and with the Commissioner of the Medical Services Administration (Alabama Medicaid Agency) for Medicaid certification. Both the Medicare and Medicaid certification programs are administered at the state level by the Certification Division.

During 1981 Medicare and Medicaid certification of health care providers and suppliers remained fairly constant. Virtually all skilled nursing homes in the state now provide intermediate care as well as skilled care.

Generally health facilities and agencies participating in one program also participate in the other. There are some exceptions. Freestanding intermediate care facilities can participate in Medicaid but not in Medicare. Other health care facilities can elect to participate in either or both programs. Table 7-1 gives the number of facilities participating in each program.

TABLE 7-1
MEDICARE/MEDICAID PARTICIPANTS

Facilities/Agencies	Medicare	Medicaid
Hospitals	138	134
Skilled Nursing Facilities	187	188
Skilled Nursing Homes with ICF Certification		186
Intermediate Care Facilities (ICF)		19
Intermediate Care Facilities for the Mentally Retarded (ICF/MR)		5
Home Health Agencies	95	86
Independent Laboratories	50	40
Rural Health Clinics	21	17
Renal Dialysis Facilities	21	13
Rehabilitation Centers	8	
Independent Physical Therapists	21	
Portable X-ray	1	
Chiropractors	244	

Prior to October 1, 1981, all certified health care providers and suppliers, except Joint Commission Accredited hospitals, independent physical therapists and chiropractors, were surveyed at least annually to determine if they were eligible to continue Medicare/Medicaid participation. Due to federal budgetary constraints, the division considered the type of facility or agency and its past record in establishing priorities for survey scheduling. Therefore some facilities might be surveyed at frequent intervals and others no more often than every two years. Nursing homes were considered as high priority by the Department of Health and Human Services (DHHS) because of their fragile nature of operation and because of the opportunity for patient care to deteriorate rapidly when personnel changes occur. Complaint investigations were also given high priority.

Due to diminished federal funding for certification, other steps were taken to reduce the work load and expenses. Consultation to facilities was greatly reduced. The number of persons on survey teams was reduced and travel restrictions instituted.

Division of Field Services

With the sharp reduction in federal funding for Medicare surveys of providers, there was a reduction in professional field staff. Consultation to facilities to help them to achieve and maintain compliance with established standards was reduced to cases where the facility's key staff could visit the state agency office in Montgomery. With the reduction in staff, survey team composition has been sharply reduced.

TABLE 7-2
FIELD SERVICE ACTIVITIES

Facility Classification	Licensure Inspection	Certification Surveys	Post-Cert. Visits	Consultation Visits	Complaints Special Inv.
Hospitals	29	120	63	8	14
Nursing Homes	232	293	390	78	199
Cerebral Palsy Treatment Centers	2	0			
Domiciliary Care Facilities	9				
Health Maintenance Organizations					
Independent Clinical Laboratories	72	54	14	5	4
Maternity Homes	2		0		
Rehabilitation Centers	0	10	4	0	0
End Stage Renal Dialysis Facility	14	14	8	4	1
Home Health Agencies	0	44	7	4	1
Independent Physical Therapists	0	8	0		
Mental Health Centers	0	0	0		
Rural Health Clinics	0	21	6	5	0
ICF/MR	0	19	11	10	0
Unlicensed Nursing Facility (Boarding Home)					8
Abortion Clinics	12	0	0	3	0
Chiropractors	0	11			

Surveys formerly conducted by four to six members are now made by two to three members. Upon Health Care Financing Administration instructions, the frequency of inspecting providers has been extremely modified based on the individual facility's prior level of compliance. Some in-house training has assisted staff in assuming responsibility for surveying functions that were formerly conducted by specific professionals.

During this year state licensure inspection responsibility was assumed for abortion clinics, rehabilitation centers and end stage renal disease facilities which came under licensure regulations.

A summary of work performed is reported in Table 7-2.

Hearing Aid Licensing Division

To meet the mandatory requirements for being licensed, hearing aid dealers and fitters must demonstrate that they are qualified to select, fit and sell hearing aids. Licensure examinations were held in January and July. Table 7-3 gives a summary of division activities.

TABLE 7-3
HEARING AID LICENSURE

Calendar Year	Regular License Renewals	Temporary Permits Issued	Passed Examination	Failed Examination
1977	112	24	10	3
1978	106	40	12	1
1979	103	28	12	4
1980	98	27	15	4
1981	106	55	15	11

From a list of nominees by the Alabama Hearing Aid Dealers Association, the Governor in 1981 filled a vacancy on the Board of Hearing Aid Dealers. He also made two other appointments to be effective January 1, 1982. The term of office of two members expires on that date.

A bill to modify the licensure law will be reintroduced in the 1982 session of the Legislature.

Licensure Division

Licensure activities continued during 1981 with inspections being made at all health care facilities which are subject to licensure. As a result of licensure inspections, recommendations for types of licenses to be issued were submitted to the Licensure Advisory Board who reviewed them before forwarding them to the Committee of Public Health for approval. All licenses, as approved by the committee, were issued and sent to the facilities prior to 1982. This was the first year that applications and fees were received before the beginning of a new year so that all licenses could be issued timely.

The State Committee of Public Health gave the Magnolia Haven Nursing Home permission to conduct a research project for the operation of an adult day care center within the facility. The project was scheduled to be conducted in 1981; however coordination with other agencies was delayed and the project will begin in 1982.

The hospice research project conducted with Villa Mercy, Inc., a 137 bed skilled nursing home, was completed. A set of guidelines was developed from the data obtained by the division staff on this project. The guidelines require additional services and professionals if a skilled nursing home provides hospice care. The guidelines were presented to the State Committee of Public Health and approved as requested. Villa Mercy was allowed to continue operating a Hospice Department in its facility as it exceeded the requirements of the guidelines.

Another research project involving Southeast Alabama Rehabilitation Center was completed. The rehabilitation center had requested permission to house more than two patients in specified rooms. The project was conducted to see if there were any differences in the progress of patients housed three to the room instead of two to a room as the regulations require. On completion of the project, the request to house three to a room was rejected partly because the facility's census at the highest was only 80 percent of the licensed capacity.

A hearing was held to revoke the license of Flint City Nursing Home due to operational deficiencies. The facility's license was revoked with the revocation held in abeyance for a period of time provided the owner lived up to his promise of entering into a management agreement and subsequent sale to Morgan Health Care, Inc. The owner complied with the agreement, and patient care and services have shown a marked improvement.

One end stage renal disease facility requested that the requirement prohibiting multiple use of disposable items be waivered to allow disposable dialyzers to be reused. The request was submitted to the State Committee of Public Health through the Licensure Advisory Board, and the bureau was requested to study dialyzer reuse. A task force was assigned and has progressed rapidly with the study. An early completion is anticipated.

The *Rules, Regulations and Standards for End Stage Renal Disease Treatment and Transplant Centers, Rehabilitation Centers, Abortion Centers and Ambulatory Surgical Centers* became effective January 1 and were applied as required. The initial application of the requirements was well accepted by the concerned facilities who were supportive of the action.

Initial licensure applications were received with three hospitals, eleven rehabilitation centers, three independent clinical laboratories, fourteen end stage renal disease centers, eleven abortion centers and one health maintenance organization being licensed for the first time and one nursing home being relicensed after closing. In addition to new applications processed, 23 facilities changed names, 108 administrators changed, eight facilities closed, 15 facilites changed operational ownership and 52 licenses were reprocessed due to bed increases, address changes and status changes. Table 7-4 provides a comparison at the beginning and ending of the year for those facilities licensed by the State Board of Health.

TABLE 7-4
LICENSURE OF HEALTH CARE FACILITIES

Type of Facilities	Number of Facilities		Number of Beds		Gains/Losses	
	1/1/81	12/31/81	1/1/81	12/31/81	Facilities	Beds
Hospitals	136	138	20,353	20,851	+2	+498
General	128	129	19,494	19,880	+1	+386
Special*	8	9	859	971	+1	+112
Nursing Homes	212	213	20,884	21,214	+1	+330
Skilled Nursing Home	48	51	3,956	4,415	+3	+459
Nursing Home (Unskilled)	20	19	1,125	1,063	-1	-62
SNH/NH	144	143	15,803	15,736	-1	-67
Maternity Homes	2	2	70	70	0	0
Cerebral Palsy Treatment Centers	2	2	99	99	0	0
Domiciliaries	11	9	664	564	-2	-100
Independent Clinical Laboratories	72	72	N/A	N/A	0	N/A
Rehabilitation Centers	0	9	0	100	+9	+100
End Stage Renal Disease	0	14	N/A	N/A	+14	N/A
Abortion Centers	0	11	N/A	N/A	+11	N/A
Health Maintenance Organizations	0	1	N/A	N/A	+1	N/A
TOTAL	435	471	42,070	42,898	+36	+828

*Types of hospitals designated as "special" are chronic disease, pediatrics, eye and rehabilitation.

Plans and Construction Division

The Plans and Construction Division's expertise in architecture, engineering and construction was utilized to review plans and inspect buildings. Thus health facilities maintain standards essential for safety and best possible patient care.

The division enforces the building regulations which the State Board of Health has established as a part of the licensing requirements for hospitals, nursing homes, ESRDs, rehabilitation centers, HMOs, abortion clinics, ambulatory surgical treatment facilities and domiciliaries. These standards prescribe necessary functional elements, establish minimum requirement for patient environment and require that specified building, fire and safety codes are met.

Health projects which receive federal aid such as grants and loan guarantees are also reviewed and inspected by this office. The Department of Health and Human Services, the Department of Housing and Urban Development, Appalachian Regional Commission, and the Farmers Home Administration are federal agencies that aid health facility construction.

Project acitivity in 1981 was as follows:

	Private Financing	Federally Aided
Projects Reviewed	128 (2,332 beds)	10 (200 beds)
Projects Under Construction	80 (1,257 beds)	12 (no beds)
Projects Completed	58 (953 beds)	6 (no beds)

The estimated cost of the projects reviewed in calendar year 1981 was $311,946,100.

Hospitals and nursing homes must maintain their buildings in compliance with the Life Safety Code of the National Fire Protection Association if they participate in Medicare and Medicaid. The division makes annual inspections, reviews plans, consults and performs necessary follow-up work to enforce this program at all hospitals (except those accredited by the Joint Commission) and nursing homes in the Medicare/Medicaid program. This division and others of the Bureau of Licensure and Certification assisted Partlow State School and Hospital to achieve certification by Medicaid.

During 1981, 225 Life Safety Code inspections and 225 follow-up visits were made to 29 hospitals, 192 skilled nursing homes, 20 intermediate care facilities and four intermediate care facilities for mentally retarded. Staff training, fire drills, evacuation plans, fire control procedures, disaster plans and smoking regulations are incorporatd in the fire safety consultation and education.

To assist the State Health Planning and Development Agency (SHPDA), the architect and engineers review schematic plans submitted with Certificate of Need Applications to determine if the project is feasible and cost effective. They also review plans for federally funded health projects which are not licensed by the Bureau of Licensure and Certification and make inspections during construction. To determine bed capacity they make onsite visits.

The health care industry has become so complex with continual innovations in equipment and services that building must be more flexible and expandable. Long-range planning is already saving millions of dollars both in construction and increased efficiency of personnel. The division works with every health facility involved in construction to ensure that buildings are as functional as possible and will respond to the needs of the future.

BUREAU OF MATERNAL AND CHILD HEALTH / FAMILY PLANNING

BUREAU OF MATERNAL AND CHILD HEALTH/ FAMILY PLANNING

By providing preventive health care services, the Bureau of Maternal and Child Health/Family Planning seeks to improve the health of women and children in Alabama. The bureau aspires to reduce infant mortality and handicapping conditions in children. The prevention of unplanned and high risk pregnancies is a concurrent goal.

In pursuit of these goals during 1981, the bureau provided maternity and infant care services in most of the county health departments of the state. The bureau's Program of Projects and a number of other special projects mandated by Title V, Social Security Act, were planned, implemented and administered. The Statewide Family Planning Project provided family planning services in each county.

In October of this year, the Bureau's Maternal and Child Health Program began operating under the new Title V block grant. As a result of this new legislation, there is no longer a federal mandated program of projects; and funding for the Improved Pregnancy Outcome (IPO), Improved Child Health (ICH), and the ARC Improved Child Health Projects is being phased out. Next year funding for the Sudden Infant Death Syndrome Project will end. Efforts are being made to continue these special projects as funding permits. During fiscal year 1982 block grant funds will be used to continue support for the following county health department activities and other activities.

1. County Departments—These programs, based in the local county health departments offer prenatal care services, well child and immunization services, and Sudden Infant Death Syndrome (SIDS) counseling services to eligible patients.
2. Mental Retardation Projects—The bureau will continue to provide support to two mental retardation projects—The Children's Center of Montgomery and the Center for Developmental and Learning Disorders in Birmingham.
3. Special Dental Projects—The Mobile Dental Project and the Birmingham Dental Project will continue to provide dental care to eligible women and children.
4. Infant Intensive Care Projects—The neonatal intensive care units at the Medical Center of the University of Alabama in Birmingham, the Medical Center at the University of South Alabama, Mobile, will continue to receive support.
5. State Laboratory—This funding will continue to support the state laboratory activities related to maternal and child health, such as PKU and hypothyroid screening and rubella titers.
6. State Immunization Program—This funding is used primarily for immunizations in well child clinics.
7. Children and Youth Projects (C&Y)—Continued support will be given to the Children and Youth Project located at Children's Hospital, Birmingham. These funds are primarily intended to support preventive ambulatory care.
8. Bureau of Dental Health—Support for dental demonstration programs at the state level will be continued.
9. Bureau of Maternal and Child Health State Office—This funding primarily provides salaries for administrative personnel who will monitor and evaluate the programs in the block grant.

Infant Mortality and Handicapping Conditions—Considerable improvement has been made in the infant mortality rate in Alabama over the last 10 years. In addition to the fewer deaths over this period of time, the incidence of developmental disabilities including mental retardation and cerebral palsy has declined as well. Table 8-1 shows that in 1980, Alabama's infant mortality rate increased from 14.3 to 15.1 per 1,000 live births. This rise in infant deaths was a part of a general rise in death rates across the state in other age groups as well. However 1981 provisional data indicate a decrease in rate to 13.2 per 1,000 live births. It is evident that Alabama must ensure that efforts to improve mother and child health are maintained if the progress in reducing infant deaths is to continue. Despite the overall improvement in the infant mortality rate, Alabama still ranks higher than the national average. Table 8-2 illustrates the excess number of deaths in each county in Alabama assuming that Alabama's mortality rate was among the best nationwide.

TABLE 8-1
INFANT MORTALITY IN ALABAMA

1976

	#	Rate
Dist. of Columbia	478	24.0
Mississippi	889	20.8
Alabama	1,134	20.0

1977

	#	Rate
Dist. of Columbia	495	23.9
Louisiana	1,362	18.0
South Carolina	856	17.8
Mississippi	784	17.3
Alabama	1,036	17.0

1978

	#	Rate
Dist. of Columbia	440	23.1
South Carolina	871	18.5
Louisiana	1,343	17.8
Mississippi	778	17.1
North Carolina	1,347	16.3
New York	3,736	16.3
Alaska	143	16.3
Tennessee	1,134	16.1
Alabama	970	16.1

1979

	#	Rate
Dist. of Columbia	392	22.6
Mississippi	819	17.8
South Carolina	859	17.2
New York	3,661	15.8
Delaware	144	15.8
Alaska	137	15.4
North Carolina	1,292	15.3
Rhode Island	186	15.2
Illinois	2,750	15.2
Tennessee	1,094	15.1
Florida	1,811	15.0
Missouri	1,165	14.8
Louisiana	1,177	14.8
Arizona	671	14.7
Alabama	891	14.3

1980

	#	Rate
Dist. of Columbia	522	29.3
Mississippi	755	15.9
Louisiana	1,222	15.4
South Carolina	769	15.4
Alabama	946	15.1

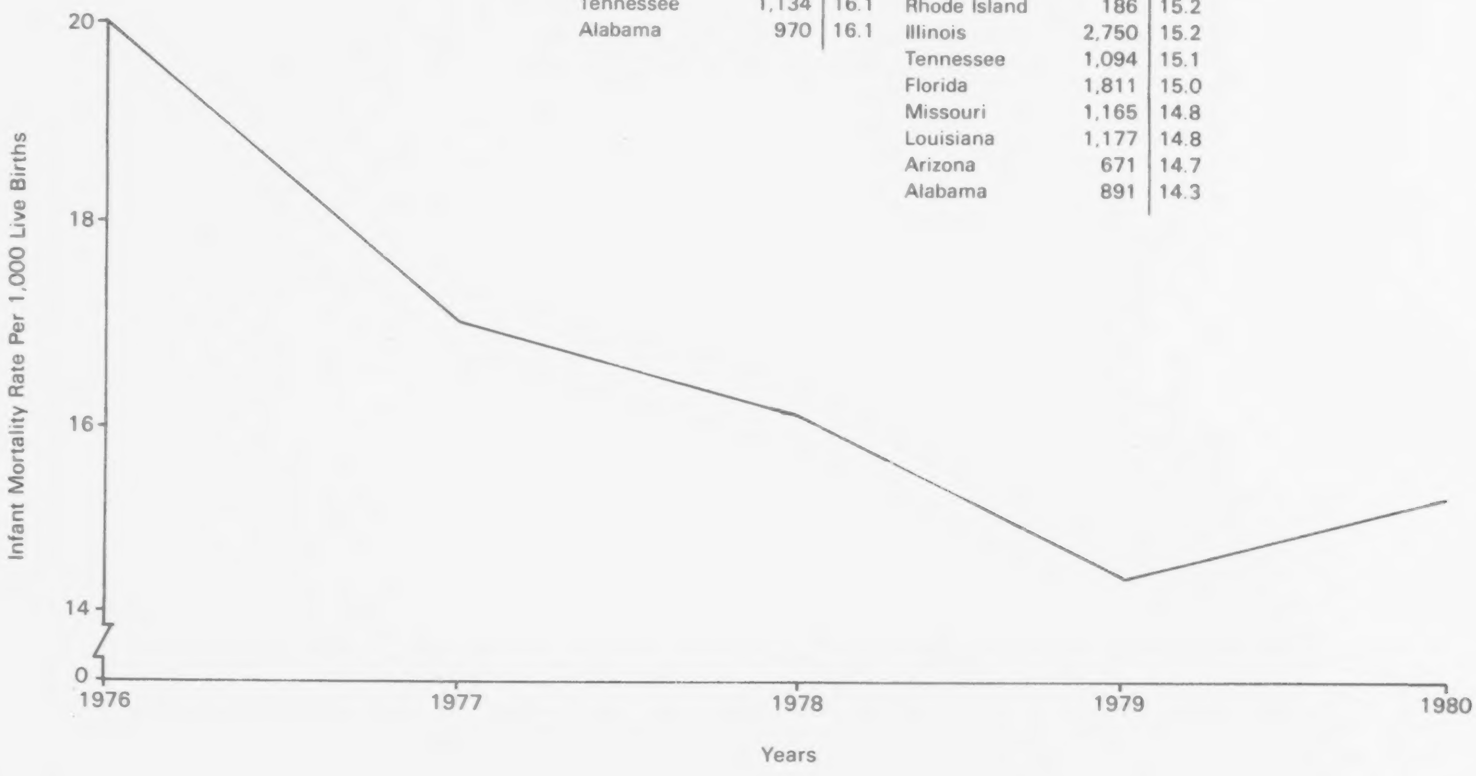


TABLE 8-2
1980 INFANT MORTALITY

County	No. of Births/ IMR*	No. of Deaths	Expected No. of Deaths**	Excess No. of Deaths**
PHA I				
Colbert	752/21.3	16	8	8
Cullman	876/12.6	11	9	2
Franklin	468/10.7	5	5	0
Jackson	839/19.1	16	8	8
Lauderdale	1,123/ 8.0	9	11	-2
Lawrence	502/13.9	7	5	2
Limestone	650/23.1	15	7	8
Madison	2,921/16.4	48	29	19
Marion	403/14.9	6	4	2
Marshall	929/11.8	11	9	2
Morgan	1,328/12.0	16	13	3
Winston	369/27.1	10	4	6
TOTAL	11,160/15.2	170	112	58
PHA II				
Bibb	268/11.2	3	3	0
Fayette	265/15.1	4	3	1
Greene	227/ 8.8	2	2	0
Hale	322/31.1	10	3	7
Lamar	247/12.1	3	2	1
Pickens	367/13.6	5	4	1
Tuscaloosa	2,087/12.0	25	21	4
TOTAL	3,785/13.7	52	38	14
PHA III				
Blount	449/ 6.7	3	5	-2
Chilton	437/13.7	6	4	2
Jefferson	10,923/15.0	164	109	55
St. Clair	617/11.3	7	6	1
Shelby	1,111/ 8.1	9	11	-2
Walker	1,038/19.3	20	10	10
TOTAL	14,575/14.3	209	145	64
PHA IV				
Calhoun	1,827/ 9.3	17	18	-1
Chambers	566/14.1	8	6	2
Cherokee	271/ 7.4	2	3	-1
Clay	212/23.6	5	2	3
Cleburne	178/22.5	4	2	2
Coosa	171/ 5.8	1	2	-1
DeKalb	823/14.6	12	8	4
Etowah	1,494/12.7	19	15	4
Randolph	321/ 6.2	2	3	-1
Talladega	1,146/10.5	12	11	1
Tallapoosa	559/12.5	7	6	1
TOTAL	7,568/11.8	89	76	13
PHA V				
Autauga	545/12.8	7	6	1
Barbour	439/18.2	8	4	4
Bullock	224/13.4	3	2	1
Butler	439/22.8	10	4	6
Coffee	631/ 9.5	6	6	0
Covington	587/11.9	7	6	1
Crenshaw	229/21.8	5	2	3
Dale	877/13.7	12	9	3
Elmore	711/23.9	17	7	10
Geneva	344/17.4	6	3	3
Henry	242/ 4.1	1	2	-1
Houston	1,344/18.6	25	13	12
Lee	1,094/16.5	18	11	7
Lowndes	319/ 9.4	3	3	0
Macon	394/10.2	4	4	0
Montgomery	3,532/19.3	68	35	33
Pike	451/20.0	9	5	4
Russell	804/19.9	16	8	8
TOTAL	13,206/17.0	225	130	95

TABLE 8-2 (continued)
1980 INFANT MORTALITY

County	No. of Births/ IMR*	No. of Deaths	Expected No. of Deaths**	Excess No. of Deaths**
PHA VI				
Baldwin	1,214/16.5	20	12	8
Choctaw	248/32.3	8	2	6
Clarke	540/16.7	9	5	4
Conecuh	273/29.3	8	3	5
Dallas	1,057/17.0	18	11	7
Escambia	608/13.2	8	6	2
Marengo	504/17.9	9	5	4
Mobile	6,938/15.4	107	70	37
Monroe	449/ 8.9	4	5	-1
Perry	233/21.5	5	2	3
Sumter	348/23.0	8	3	5
Washington	345/11.6	4	3	1
Wilcox	354/19.8	7	4	3
TOTAL	13,111/16.4	215	131	84
TOTAL	63,405/15.1	960	632	328

*Based on IM per 1,000 live births
**Based on IM rate of 10 per 1,000 live births

During fiscal year 1981, 17,231 maternity patients (approximately one-fourth of all pregnant women in Alabama) were served in the State Health Department clinics. Table 8-3 compares the number served in 1981 with 1980. According to data from county reports, approximately 13,200 children ages 0-2 were served in the Health Department's well baby clinics in fiscal year 1981.

Unplanned and High Risk Pregnancies—Unplanned and high risk pregnancies are associated with an increase in infant mortality, low birth weight, fetal death, child abuse and other related difficulties including toxemia and maternal mortality. These problems can be prevented through comprehensive family planning services which provide Pap smears, counseling, screening and contraceptive services to every woman in need of pregnancy preventive services. The Alabama Statewide Family Planning Project through funding from Title X of the Public Health Services Act provides comprehensive services in an effort to reduct the infant mortality rate and the number of unplanned pregnancies, especially those considered high risk. During fiscal year 1981, 80,237 patients were served in the family planning clinics. Table 8-4 gives the number of patients in each public health area.

Teenage pregnancy continues to be one of the major public health problems in Alabama. The 13,048 live births to Alabama mothers 19 years of age and under represent nearly 21 percent of all the live births in Alabama in 1980. However Alabama is making progress in addressing the problem of teenage pregnancy. The birth rate for teenagers has shown a small decrease for the past three years from 40.1 per 1,000 population in 1978 to 38.1 in 1980.

During fiscal year 1981 the Statewide Family Planning Project provided comprehensive family planning services to approximately 20,000 teenagers. Approximately 10,000

TABLE 8-3
MATERNITY

Area	Patients Served		Total Visits		Percent of Patients Admitted in First Trimester	
	FY 1980	FY 1981	FY 1980	FY 1981	FY 1980	FY 1981
PHA I	1,259	1,883	6,590	9,962	17.6	20.6
PHA II	1,199	1,232	7,027	7,370	31.4	27.8
PHA III	4,606	5,749	38,641	38,017	28.0	44.6
PHA IV	1,061	1,082	5,587	5,453	15.6	18.8
PHA V	3,346	3,624	15,135	15,846	22.7	25.9
PHA VI	2,994	3,661	17,227	18,796	11.5	17.8
Statewide	14,465	17,231	90,207	95,444	19.4	24.2

births to teenagers were prevented because of these services. Furthermore nearly 90,000 teenagers were counseled in an attempt to promote responsible decisions concerning sexual activity and especially to warn teenagers about the dangers associated with early pregnancy and venereal disease.

TABLE 8-4
FAMILY PLANNING
FISCAL YEAR 1981

Program	Total Patients Served	Teens Served
PHA I	13,382	3,283
PHA II	5,273	1,240
PHA III	22,680	4,685
PHA IV	7,780	2,081
PHA V	16,555	4,223
PHA VI	14,567	3,990
Statewide	80,237	19,502

Table 8-5 summarizes family planning services in the state in 1981.

Bureau Administration

A summary of 1981 activities of the divisions within the Bureau of Maternal and Child Health/Family Planning follow.

TABLE 8-5
STATEWIDE FAMILY PLANNING PROJECT
FISCAL YEAR 1981

1. Unduplicated patients served:	
New	27,486
Continuing	52,751
Total	80,237
2. Total patient clinic visits	217,508
3. Teenagers served:	
New	11,258
Continuing	8,244
Total	19,502
4. Teenage groups:	
Under 18	7,331
18-19	12,171
5. Medical services provided patients:	
Pap tests	70,556
Pelvic exams	82,865
Breast exams	68,102
Blood tests	66,797
Urinalysis	73,494
VDRL	67,754
GC	77,234
Blood pressure	209,552
Sickle cell tests	15,006
Other	209,283
6. Referrals for medical problems	8,669
7. Patients served who were below 150% of CSA Poverty Level (88.2%)	70,769
8. Medicaid patients represent 20.7% of the total caseload.	
9. Total clinical (medical) visits	118,728
10. 41.0% of all new patients admitted were teens.	
11. 37.8% of all new patients admitted had used no method of contraception prior to enrollment in the clinic programs.	
12. Family planning patients averaged 2.71 visits per patient during FY 1981.	

TABLE 8-6
WELL CHILD
FISCAL YEAR 1981

PHA I	1,408
PHA II	972
PHA III	5,262
PHA IV	1,188
PHA V	3,552
PHA VI	900
State Total	13,282

NOTE: Since Clinic Visit Reporting is not fully in place at the time of writing the annual report, the above figures are estimates, based on six months' reporting by the counties.

Division of Data and Analysis

The Division of Data and Analysis maintained and monitored the patient reporting systems for family planning, well child, and maternity. Training and technical assistance on the functioning of these systems were provided. To aid in planning and reporting, the division provided data on all programs of the bureau.

Activities:

1. Implemented the well child reporting system.
2. Audited clinics for data consistency and reliability.
3. Provided workshops for clinic staffs.
4. Provided technical assistance to clinic and area program staffs.
5. Revised the family planning reporting system.
6. Developed data publications for the bureau.

Division of Fiscal Management

The Division of Fiscal Management developed budgets and financial plans for the programs of the Bureau of Maternal and Child Health/Family Planning. Program directors received accurate and timely expenditure information which aided in decision making, planning and accountability of funds.

Activities:

1. Administered a unified system of financial management for MCH/FP. A sound financial plan for each county, each region and the state was based on annual assessments of resources and expenditures.
2. Monitored all special projects and provided an ongoing evaluation of the expenditures of them.
3. Maintained an accounting system for recording all bureau expenditures.
4. Maintained the family planning fee system and continued to study the feasibility of expanding the system to maternal and child health services.
5. Administered a statewide supply system for MCH/FP.
6. Provided administrative support to regional administrators in preparing and maintaining annual budgets and expenditure reports for each health service area.
7. Provided general administrative support for all MCH programs.
8. Coordinated personnel actions within the bureau.

Division of Health Promotion

The Division of Health Promotion activities in MCH/FP were divided into five distinct areas.

1. Public awareness of proper health care.
2. Patient education in clinic sites.
3. Community health education and local resource development.

4. School family life education.
5. Staff training and development.

Activities:

1. Maintained and updated the bureau's resource center including the addition of several films.
2. Added a health educator to the Division of Health Promotion who worked jointly with the Division of Patient Care. In addition to being responsible for the educational component of the Sudden Infant Death Syndrome Project, the new health educator assisted with the Adolescent Grant and the development of patient education guidelines.
3. Increased the effectiveness of advisory councils through orientation, training, consumer participation and consumer recruitment.
4. Monitored and reported on community contracts.
5. Implemented statewide media campaigns on teenage pregnancy and Sudden Infant Death Syndrome and provided technical assistance in the development of local media campaigns.
6. Provided materials and consultation in family life education to school systems and other agencies.
7. Developed patient education guidelines and patient education materials with the Division of Patient Care.
8. Continued to effect and evaluate the training plan for MCH/FP. Consulted with the Division of Patient Care on training as determined by an assessment.
9. Continued being involved with the statewide interagency task force on adolescent pregnancy.
10. Developed community health education projects in one MCH/FP area and assisted ongoing projects in other areas.

Division of Patient Care

The purpose of the Division of Patient Care is to promote quality care for maternity, pediatric and family planning clients by providing technical assistance to MCH/FP personnel, evaluating MCH/FP programs through quality assurance, maintaining follow-up systems and providing opportunities for continuing education for MCH/FP personnel.

Activities:

1. Implemented an adolescent counseling grant which included:
    a. Development of a set of educational modules to be used for instructing health professionals in counseling adolescents.
    b. Preparation of health professionals for teaching adolescent counseling.
    c. Instruction of other health professionals in adolescent counseling.
2. Implemented a statewide Sudden Infant Death Syndrome Counseling and Information grant which included:
    a. Establishment of a case management.
    b. Training for service providers.
    c. Community education.
3. Assisted in 21 onsite quality assurance reviews.
4. Revised the Maternity and Family Planning Patient Care Protocol Manuals.
5. Began major revisions in the Pediatric Patient Care Protocol Manuals.
6. Provided each county with a dextrometer for blood sugar testing for maternity patients. Gave clinic staff instructions on the use of these meters.
7. Expanded training on genetics and phenylketonuria. These topics were included as part of a public health nursing in-service series.
8. Cosponsored a workshop on adolescent health with Crippled Children's Service, University of Alabama in Birmingham, Auburn University in Montgomery and the University of Kentucky.
9. Enabled five nurses to become OB/GYN nurse practitioners by assuring training through the Regional Training Center for Family Planning.
10. Held a Contraceptive Technology Update Workshop through the Regional Training Center for Family Planning.

Division of Quality Assurance

The Division of Quality Assurance designed, implemented and monitored a system of quality assurance at local, area and state levels which can evaluate the quality of patient care, staff utilization and productivity, management systems, and support systems. The division also assisted in designing and implementing efficient and effective systems in all functional areas of the bureau.

Activities:

1. Assisted in revising, implementing and monitoring the planning process of MCH/FP to assure compliance with federal mandates for quality assurance in Title X and Title V programs which include the county, area and state plans and budgets of MCH/FP.
2. Administered the Alabama Statewide Family Planning Project including drafting of the continuation application, the review process, reporting requirements, program evaluation, liaison with Region IV of the Department of Health and Human Services, interpretation of Title X regulations and requirements, and budget revisions.
3. Quarterly and semiannually monitored clinical information systems for compliance with quality standards of care in fulfilling federal reporting requirements for Title X and for evaluation of clinic

effectiveness as well as statewide efficiency and productivity.

4. Carried out the onsite quality assurance review for complete clinic program evaluation in 21 counties.
5. Began revisions of sections of the policy and procedure manual for the Bureau of Maternal and Child Health/Family Planning in order to streamline information flow and reduce paper work at all levels.
6. Provided consultation and technical assistance when needed.

Division of Support Services

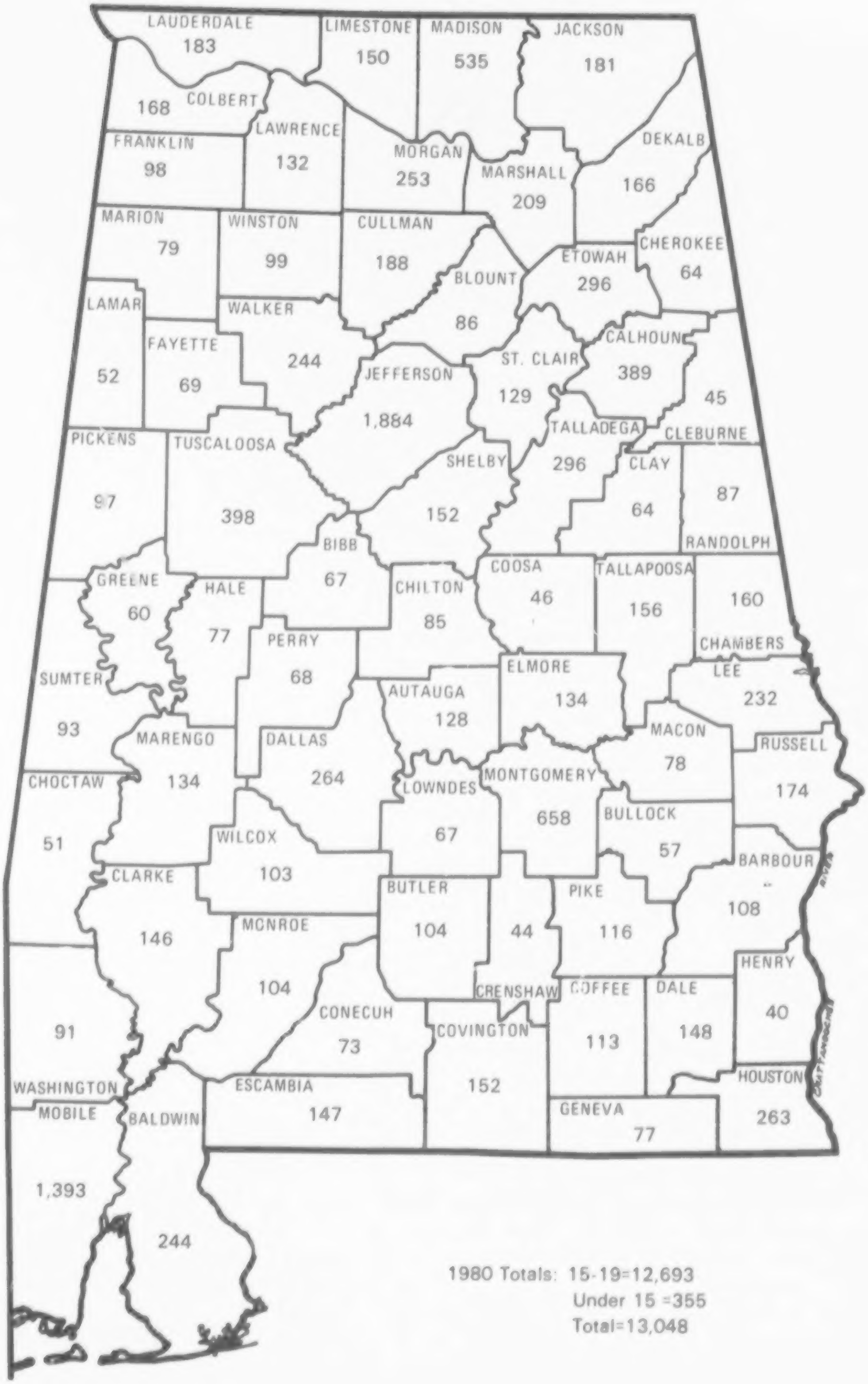
The Division of Support Services developed and coordinated all contractual agreements and their related requirements between the Bureau of Maternal and Child Health/Family Planning and other state agencies, universities, private organizations, hospitals and professionals.

This division coordinated the State Perinatal Program as well as the Statewide High Risk Referral testing program. The coordination of activities between the bureau, Medical Services Administration, the fiscal intermediary and the providers of Title XIX services was the responsibility of this division. This division also served as linkage to the Division of Internal Audit, coordinated all bureau leases and maintained control over the purchase and the inventory of state and hospital equipment.

Activities:

1. Developed, implemented and maintained all contracts that were required to facilitate the operation of Maternal and Child Health/Family Planning Programs during 1981.
2. Coordinated the State Perinatal Program involving 12 perinatal projects throughout the state. State appropriations totaled $750,000.
3. Coordinated activities between the Bureau of Maternal and Child Health/Family Planning, Medical Services Administration, and the fiscal intermediary for all county health departments and Title V agencies under contract for the provision of maternal and family planning services which were reimbursed under Title XIX.
4. Coordinated lease agreements for space needed to provide Maternal and Child Health/Family Planning services.
5. Coordinated the activities of eight referral centers which provide tests and consultation for indigent maternity patients.
6. Maintained an inventory and purchased equipment for the bureau and for hospitals.

CHART 8-1
RESIDENT LIVE BIRTHS TO MOTHERS 19 YEARS OF AGE AND UNDER


LAUDERDALE 183
LIMESTONE 150
MADISON 535
JACKSON 181
168 COLBERT
LAWRENCE 132
FRANKLIN 98
MORGAN 253
MARSHALL 209
DEKALB 166
MARION 79
WINSTON 99
CULLMAN 188
BLOUNT 86
ETOWAH 296
CHEROKEE 64
LAMAR 52
FAYETTE 69
WALKER 244
JEFFERSON 1,884
ST. CLAIR 129
CALHOUN 389
45
CLEBURNE
TALLADEGA 296
PICKENS 97
TUSCALOOSA 398
SHELBY 152
CLAY 64
87
RANDOLPH
BIBB 67
GREENE 60
HALE 77
CHILTON 85
COOSA 46
TALLAPOOSA 156
160
CHAMBERS
PERRY 68
SUMTER 93
ELMORE 134
LEE 232
AUTAUGA 128
MARENGO 134
DALLAS 264
MACON 78
RUSSELL 174
CHOCTAW 51
LOWNDES 67
MONTGOMERY 658
BULLOCK 57
WILCOX 103
BARBOUR 108
CLARKE 146
BUTLER 104
44
CRENSHAW
PIKE 116
MONROE 104
HENRY 40
COFFEE 113
DALE 148
CONECUH 73
91
WASHINGTON
COVINGTON 152
HOUSTON 263
ESCAMBIA 147
GENEVA 77
MOBILE 1,393
BALDWIN 244

1980 Totals: 15-19=12,693
Under 15 =355
Total=13,048

BUREAU OF NUTRITION

FOODS
CEREALS
MILK

BUREAU OF NUTRITION

The Women, Infants and Children Nutrition Division, formerly under Personal Health Services Administration, was redesignated as the Bureau of Nutrition on January 1, 1981. The Bureau of Nutrition is responsible for the administration of the Special Supplemental Food Program for Women, Infants and Children (WIC Program).

WIC programs are operational in all 67 counties in Alabama. Services are available in all county health departments except Lowndes County in which the program is provided by the Lowndes County Health Services, Incorporated.

Good nutrition is essential during early development and growth. By supplying specific nutritious foods to supplement the diets of pregnant and nursing women, infants, and children up to four years of age, the WIC Program improves the general health of participants and helps to prevent health problems. Eligible participants receive milk, eggs, cheese, iron fortified cereal, citrus juices and iron fortified infant formula.

Competent professionals, such as physicians, nutritionists and nurses, determine if inadequate diets and inadequate incomes place potential participants at nutritional risk. Those who are classified within eligible priorities are certified for the program.

Nutrition education for participants is a mandatory component of the WIC Program. Nutritionists, nurses and trained clerical staff in local program areas provide information on the best use and the nutritional value of the supplemental foods. They discuss the nutritional needs of the participants and the relationship of diet to good health. Also they explain the importance of health care. If participants need specific attention, they are referred to health department clinics or appropriate agencies in the community.

In fiscal year 1981 the United States Department of Agriculture provided $20,986,662 in unmatched federal funds, and 117,585 individuals benefitted from the WIC Program. With the increase of $3,296,022 in funds, 23,051 more persons received the supplemental funds. An average of 8,879 women, 17,542 infants and 28,819 children were served each month. Each individual received an average of $25.88 worth of food a month. Table 9-1 gives a breakdown of participants by category and numbers served in each local program.

TABLE 9-1
WIC RECIPIENT ANALYSIS

County	Women		Infants		Children			
	Under 17	Over 17	0-6 Mo.	Over 6 Mo.	1-2	2-3	3-4	4-5
PHA I								
Colbert	21	361	110	271	243	274	206	285
Cullman	18	307	73	260	88	118	87	93
Franklin	7	225	51	187	124	137	134	197
Jackson	21	303	87	221	150	175	150	190
Lauderdale	28	481	130	328	297	285	215	315
Lawrence	22	182	58	187	114	121	107	132
Limestone	14	225	54	176	112	134	74	91
Madison	51	605	156	614	197	254	162	171
Marion	7	243	87	219	151	176	154	218
Marshall	20	332	90	213	195	193	168	192
Morgan	38	414	107	342	154	171	157	158
SRHCC		93	17	81	61	63	68	75
Winston	3	131	37	125	92	101	82	122
PHA II								
Bibb	16	134	38	135	98	96	74	121
Fayette	2	78	28	72	57	56	45	60
Greene	7	153	64	121	147	131	107	170
Hale	19	231	63	182	201	213	182	250
Lamar	2	101	38	74	76	68	59	89
Pickens	14	275	87	221	215	267	216	260
Tuscaloosa	52	612	212	549	415	410	304	370
PHA III								
Blount	7	133	39	92	55	63	60	67
Chilton	23	251	58	191	146	147	107	111
Jefferson	339	4,819	1,648	3,931	2,604	2,267	1,166	1,096
St. Clair	10	174	59	162	143	128	130	173
Shelby	35	381	105	254	191	211	137	144
Walker	10	202	63	204	155	175	142	180
PHA IV								
Calhoun	19	442	143	407	359	355	300	384
Chambers	13	165	54	208	185	173	132	197
Cherokee	10	186	44	146	91	112	94	110
Clay	4	87	32	58	59	70	49	41
Cleburne	4	70	24	60	46	56	35	51
Coosa	4	66	25	77	32	43	35	41
DeKalb	10	231	67	175	140	148	91	121
Etowah	29	578	174	394	384	361	245	321
Randolph	8	80	25	61	79	56	38	59
Talladega	42	459	170	398	340	328	203	250
Tallapoosa	27	206	69	168	144	157	119	172

TABLE 9-1 (Continued)
WIC RECIPIENT ANALYSIS

County	Women		Infants		Children			
	Under 17	Over 17	0-6 Mo.	Over 6 Mo.	1-2	2-3	3-4	4-5
PHA V								
Autauga	17	242	88	169	160	143	110	126
Barbour	21	332	98	188	235	227	158	192
Bullock	8	158	53	115	119	114	74	95
Butler	20	301	93	214	213	254	144	140
Coffee	12	312	113	276	249	293	198	319
Covington	19	319	98	283	232	263	205	220
Crenshaw	8	123	40	74	106	103	66	104
Dale	12	315	85	256	170	213	163	216
Elmore	17	223	68	176	181	152	103	92
Geneva	14	300	81	234	245	275	196	344
Henry	12	164	49	131	116	119	83	152
Houston	35	435	134	310	313	262	200	217
Lee	36	370	113	278	174	177	138	137
LCHS	1	48	4	51	20	46	69	111
Lowndes	19	345	104	273	282	291	256	371
Macon	19	318	100	198	229	200	126	120
Montgomery	88	1,213	404	909	811	667	429	501
Pike	18	342	121	216	231	216	151	147
Russell	18	346	119	303	216	256	171	211
PHA VI								
Baldwin	16	367	100	275	288	266	233	294
Choctaw	12	159	27	176	52	103	62	92
Clarke	28	345	101	260	217	231	175	254
Conecuh	7	192	49	165	158	180	148	217
Dallas	38	541	173	399	542	423	293	289
Escambia	21	368	96	294	283	301	213	266
Marengo	13	309	112	189	284	221	132	197
Mobile	238	3,151	566	3,529	941	1,222	751	952
Monroe	9	192	70	163	214	178	113	113
Perry	14	195	76	117	204	195	168	276
Sumter	20	311	88	209	148	179	151	217
Washington	12	139	29	134	94	100	62	86
Wilcox	16	340	112	210	246	253	199	223

After June 1, 1981, children over four years of age and applicants who would only be eligible for known inadequate dietary patterns (priorities IV and V) were no longer certified. Therefore more funds were available to serve individuals in greater need, such as prenatals and infants. No limitations were placed on the number who could be certified in priorities I through III. At the end of 1981, 46,669 eligible people were participating in the WIC Program.

Professional and administrative personnel managed the WIC Program. Four administrators, 109 clerical employees, 36 nurses and 40 nutritionists comprised the statewide WIC staff at the end of the report period.

A total of 56 new WIC employees attended three orientation training sessions conducted by the state WIC staff. In addition 58 employees received special in-service training on the new procedure manual. The Bureau of Nutrition sponsored four workshops on infant nutrition which 153 health professionals attended.

In July 1981 the Southeast Regional Office of Food and Nutrition Services approve the updating and enhancing of the WIC data processing system. Implemented data for the new system were scheduled on December 1, 1981.

The availability of funds will determine the future of the WIC Program.

BUREAU OF PREVENTIVE HEALTH SERVICES

BUREAU OF PREVENTIVE HEALTH SERVICES

Cancer Detection Division

Screening for cancer of the uterine cervix, endometrium and breast in Alabama's asymptomatic female population 35 years of age and older continued to be the responsibility of the Division of Cancer Detection. Patients with abnormal test results were referred to their private physicians for appropriate treatment and follow-up. Since the cure rate of these cancers is very high if detected early, screening is essential.

During fiscal 1981 the Cancer Detection Division conducted 19,653 pelvic examinations which resulted in detecting 41 patients with abnormal pathology results of Class III, IV or V Pap tests and 14 among the 2,129 Gravlee tests (endometrial washings). Significantly these do not include patients with Class II or Class 0 exam results. Table 10-1 gives a summary of findings.

The division's follow-up of Class II or Class 0 patients has always been as diligent and relentless as with patients having Class III, IV or V although the yield has not received as much attention in the evaluations. Even private physicians shrug off Classes II and 0 as benign conditions which they usually ignore without treatment.

However in this group from Pap screening efforts of the division an additional nine patients with dysplasia, four with carcinoma in-situ (CIS), one invasive epidermoid carcinoma and one carcinosarcoma (along with a number of other benign conditions such as chronic cervicitis and metaplasia). Among the Class IIs, Gravlee tests discovered an additional three patients with hyperplasia, (all of whom had had negative Pap tests) and two patients with adenocarcinoma of the endometrium, Stage I, both of whom had had Class II Pap smear results.

Breakdown of the 41 abnormal smears (Class III, IV or V) patients shows that 25 of them had been in Health Department clinics for previous Pap exams, but the remaining 16 were patients who had not been previously screened. The 14 abnormal Gravlee tests were divided equally at seven among previously screened and not screened.

Normal inflation continued to bite into the operating funds which again were cut in 1981 in spite of an approximate 12 percent inflation increase. Therefore additional funding is essential to maintain the current operational levels and yields through finding early, curable cancer. Cost effectiveness and cost benefit have continually been demonstrated since the inception of the Cancer Detection Division. Unserved and underserved areas of Alabama deserve the same consideration as those areas already being served, but the anxiety and despair of cancer cannot be obviated without increased funding to maintain current operations and expand into the remaining 18 counties which include Mobile, Jefferson, Madison and Tuscaloosa.

TABLE 10-1
SUMMARY OF CANCER DETECTION ACTIVITIES

SUMMARY REPORT FOR CANCER DETECTION DIVISION FOR CALENDAR YEAR 1981

			CERVICAL SMEARS						UTERINE WASHINGS						TOTAL NO SPECIMENS COLLECTED
	COUNTIES	CLINICS	REPEAT PTS	NEW PTS	* II	III	IV	V	REPEAT PTS	NEW PTS	* II	III	IV	V	
PHA # 1	Colbert	19	164	92					24	10					290
	Cullman														
	Franklin	23	188	62		2			33	9		1			292
	Jackson	24	125	115	1				20	18	1				278
	Lauderdale	24	195	125	2	2			38	25	1				383
	Lawrence														
	Limestone														
	Madison														
	Marion	14	184	68					18	10				1	280
	Marshall	33	665	254	5				92	55	3			1	1,066
	Morgan														
	Winston	13	319	52	3	1			21	16	1				408
PHA # 2	Bibb	11	148	27					9	5			1		189
	Fayette	12	189	40	1				24	14	1				267
	Greene														
	Hale	18	321	97		1			25	15	1				458
	Lamar	11	243	41					40	15					339
	Pickens														
	Tuscaloosa														
PHA # 3	Blount	11	247	49					25	10					331
	Chilton	14	237	108	2				20	16					381
	Jefferson														
	St. Clair	23	260	111	1	3			24	20		1			415
	Shelby	12	245	61		1			19	10					335
	Walker	30	651	121	4	1			46	23					841
PHA # 4	Calhoun														
	Chambers	21	366	82	4	2			32	18		1			498
	Cherokee	12	253	69		1			17	18					357
	Clay	14	351	38	1				28	3	1				420
	Cleburne	11	160	41	2				14	10	1				225
	Coosa	15	111	29					6	9					155
	DeKalb	23	624	184	3	3			57	35		2			900
	Etowah	35	751	174	4	1			81	33	1				1,039
	Randolph	11	130	48	1	2			10	4					192
	Talladega	44	711	184	5	3			45	18					958
	Tallapoosa	25	483	199	1	3			37	35		1			754
PHA # 5	Autauga														
	Barbour	23	329	67	2		1		11	10					417
	Bullock														
	Butler														
	Coffee	22	673	179	4	1			23	28	2				903
	Covington	12	621	146	3	1			32	35	2	1			834
	Crenshaw	13	266	55			1		30	16			1		367
	Dale	8	39	79	1				5	5					128
	Elmore														
	Geneva	14	347	113		2			14	20					494
	Henry	13	415	68					27	21	1				531
	Houston	13	531	153	4	1			28	33	2				745
	Lee	12	424	133		2			33	32	1				622
	Lowndes	4	25	7					5	6					43
	Macon														
	Montgomery	39	170	117	4	1			18	18	1				323
	Pike														
	Russell	13	146	75	1				7	14					242
PHA # 6	Baldwin	30	97	190	1	1			11	28		1			326
	Choctaw	12	160	46	2	1			18	8					232
	Clarke	29	380	120	3				38	18					556
	Conecuh	12	186	46	1	1			14	6	1				252
	Dallas	19	337	174	5	1			24	22	1				557
	Escambia	24	326	128	2		1		34	38			1		526
	Marengo														
	Mobile														
	Monroe	25	488	141	1				39	13	1	1			681
	Perry	13	138	42					17	11					208
	Sumter	22	232	72	1				15	3					322
	Washington	14	204	80					14	8					306
	Wilcox	11	77	19	1				11	9	1				116
TOTAL		900	14,932	4,721	76	38	3	0	1,273	856	24	9	3	2	21,782

TOTAL PAP SMEARS 19,653

TOTAL POSITIVE PAP SMEARS 41

TOTAL UTERINE WASHINGS 2,129

TOTAL POSITIVE UTERINE WASHINGS 14

NEGATIVE PAP–POSITIVE WASHINGS 7

POSITIVE PAP–NEGATIVE WASHINGS 7

POSITIVE PAP–POSITIVE WASHINGS 7

*Class II figures reflect only activities since 10-1-81

Division of Hypertension

The primary mission of the Alabama High Blood Pressure Control Program is to reduce and prevent sickness, disability and death associated with uncontrolled blood pressure among Alabama's citizens.

Services available include the promotion and provision of consumer and professional educational materials, in-service programs and community talks relating to the control of high blood pressure. As a more direct benefit, the program provides permanent screening and follow-up, diagnosis, and treatment in certain areas where clinics have been established for low income patients.

Extent of Problem and Cost—An estimated 420,000 people in Alabama have hypertension, and this silent anomaly is the leading risk factor for major cardiovascular disease deaths. In Alabama major cardiovascular diseases account for half of all deaths. The largest component of this disease group is heart disease which became Alabama's leading cause of death in 1926 and has remained such ever since. Another large component which perennially ranks third among the causes of death in Alabama is cerebrovascular diseases.

The estimated economic cost nationwide of cardiovascular diseases by type of expenditure in 1981 were:

Physician and Nursing Services	$ 6.2 billion
Hospital and Nursing Home Services	25.9 billion
Cost of Medication	3.1 billion
Lost Output Due to Disability	11.0 billion
TOTAL	$46.2 billion

In Alabama, as well as the nation, a decrease in cardiovascular deaths has occurred since 1973. It is cost effective to prevent these diseases through screening, detection, medication and follow-up than to have to treat the victims of heart attacks or strokes.

During fiscal year 1981 the Alabama High Blood Pressure Control Program had 2,434 low income hypertensive patients on therapy at an annual cost of $25.70. This cost is down from the 1979 and 1980 figures of $30 and $27 respectively. National studies estimated several years ago the mean annual medication cost per person to be $137 per year. Since that time, prices have inflated about 20 percent. Similar economies in Alabama for 1981 can be seen from comparing the 52,395 program blood pressure contact visits at a per person cost of $8.98 to the cost of an extremely efficient New York City program whose cost was $16.19 per contact.

Since high blood pressure often takes years to take its toll, it is extremely difficult to measure scientifically the exact impact of a state's program. One measure which is useful, but for which the program can only take a portion of the credit, is a comparison of death rates in pre-program years and program years. The average cerebrovascular death rate in Alabama for five years (1970-1974) before the program compared to each year of the program shows decreases ranging from 10 to 31 percent. For heart disease deaths the decreases range from 4.5 percent to 8 percent.

Blood Pressure Control Clinics—During 1980, 13,586 individuals never seen before by the program were screened. Of this number, 3,435 or 25.3 percent were first screenees who were either elevated or had a history of taking blood pressure medication. Of the white screenees who were elevated and not on medication, 54.2 percent had never been told before that they had high blood pressure. Of the blacks 58.1 percent had never been told. Of the white screenees who were on medication or had a history of medication, 57.6 percent were controlled. Of the blacks in this category, 52.7 percent were controlled. In contrast, among the program's medication patients, there were 12,844 controlled visits for 70.3 percent.

Of the 3,435 first screened hypertensives, 704 (20.5 percent) were entered into program therapy. The remaining 79.5 percent were referred to private medical care because they were not low income or because they had a history of care from a community physician. It is important to know that this program is not in competition with private practice.

Despite enrolling 704 new therapy patients, bringing the total to 2,434 on medication, the program lost 341 for a net gain of 363. A dropout rate of 341 out of 2,434 or 14 percent is considered excellent. It is not unusual for a program to experience dropout rates of 30 percent or greater.

In patient revisits, the program saw 20,878 people, eclipsing last year's mark of 16,275. The 20,878 figure does not include nonpatient monitoring (16,174), nor first screening and similar visits, which together made 52,395 patient contacts.

Clinic Expansion—The Alabama High Blood Pressure Program expanded into two new high risk target counties, Greene and Pickens, in 1981. These counties rank first and fourteenth in Alabama in terms of prevalence rates for hypertension. Similarly both counties rank high in percent of poverty and blacks, both factors which are associated with prevalence of high blood pressure.

To accompany the expansion of the program area, economies were started late in the year. The full impact of them will not be felt until fiscal year 1982. Despite increased service areas, units of service and persons served, unit cost is decreasing because of shared program payment of staff, further reduction in drug costs, and sharp reduction in travel.

Program Subcontracts—During 1981 one highly successful subcontractual arrangement with a group called Project Heart ended, and an agreement with the West Alabama Health Services, Inc., began. The West Alabama program is financed with federal funds. Only four states in the nation received funds for this type demonstration project which offers the National Heart, Lung and Blood

Institute an opportunity to evaluate Hypertension Detection and Follow-up Program (HDFP) methods in a clinical setting rather than in a research setting. This action represents the major step of translating clinical trial outcomes into the health care system of this country.

Project Heart, which terminated in July, was the project name coined by the participating agencies in high blood pressure control in 16 rural Alabama counties. The cooperating agencies were the Hypertension Program, the American Heart Association, the American Rural Health Association, Tuskegee Area Health Education Consortium and the University of Alabama in Birmingham.

Administratively the project ran smoothly, and programmatically the project was also a success with every objective being addressed with several resulting products from each.

Some of the products which are considered to be particularly well developed include the random sample 16-county hypertension survey, a health/medical resource directory, a combination flip chart/tape kit for any group to plan screenings, health tip calendars and other innovative health message ideas for poor and minority populations.

The random sample survey for the 16-county area, for example, revealed dramatic prevalence differences in age, sex and racial groups. Black females more than 50 years of age had a prevalence of hypertension greater than 73 percent as contrasted with 7 percent with white females less than 50 years of age.

Other products from this project were the experienced human resources that evolved in terms of staff and the large core of volunteers. The cooperative attitude and respect that now exist between the agencies will benefit all.

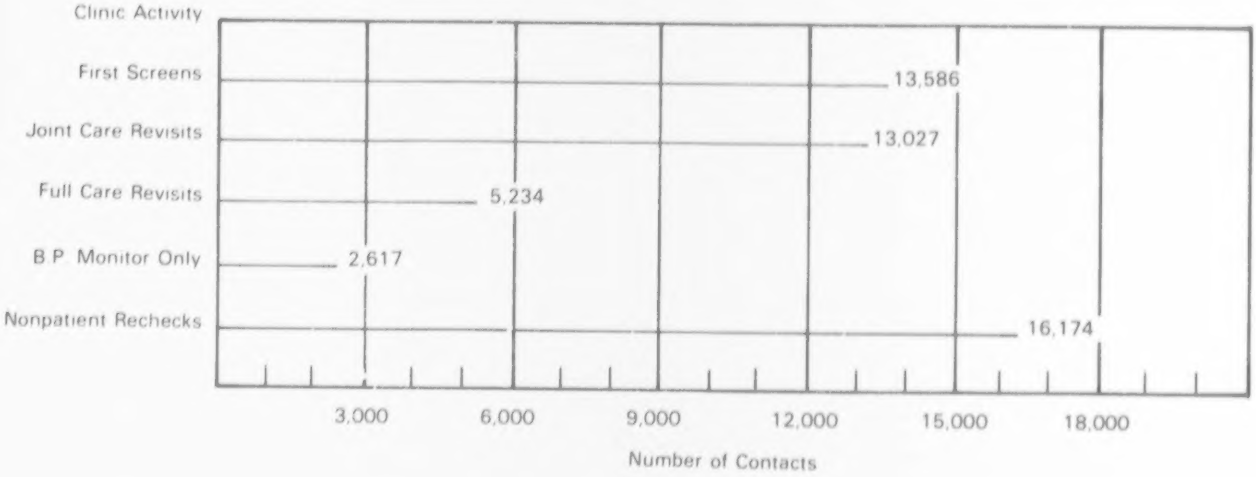
Education and Special Events—The Alabama High Blood Pressure Program promoted high blood pressure control statewide and responded to numerous requests for consumer and professional education materials. An increased number of nursing students requested epidemiological data on high blood pressure.

The four most popular pamphlets and consumer educational pieces were heavily requested with a combined total of 24,950 pieces being distributed. These were shipped to a wide array of agencies and individuals.

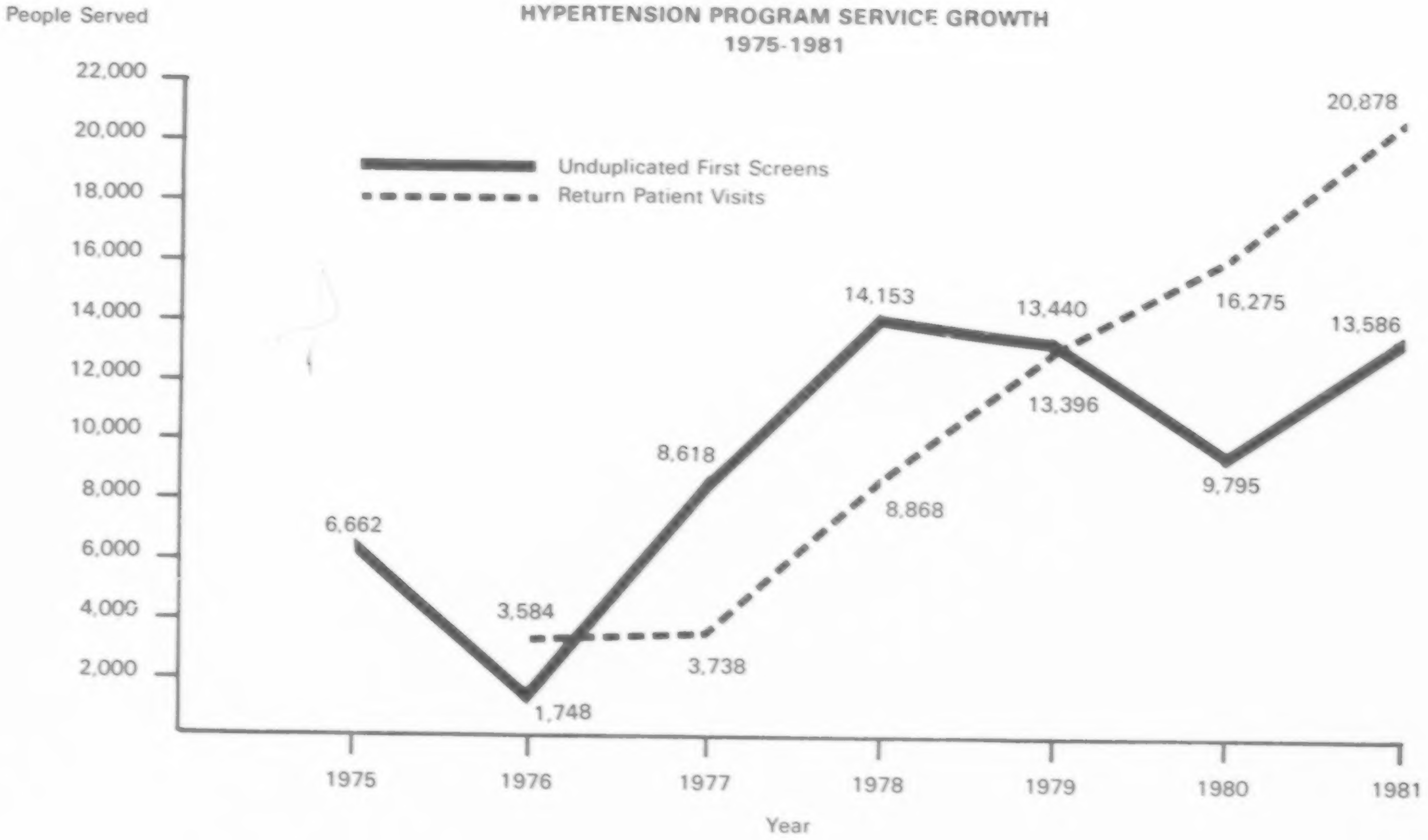
Highlighting the year was the promotion of High Blood Pressure Month in May, including cosponsoring a professional conference on hypertension. The theme for the 1981 conference was "You Are Making a Difference." Also during the month several articles were placed in newspapers around the state to inform the public of the latest advances in blood pressure control. Films dealing with high blood pressure which were placed with the Bureau of Primary Prevention for public loan have reached an all-time high demand rate.

During the year blood pressure program patients were encouraged to limit salt, reduce consumption of pork, lose a few pounds and continue taking their medicines. Some of those who followed their regimen were rewarded by patient

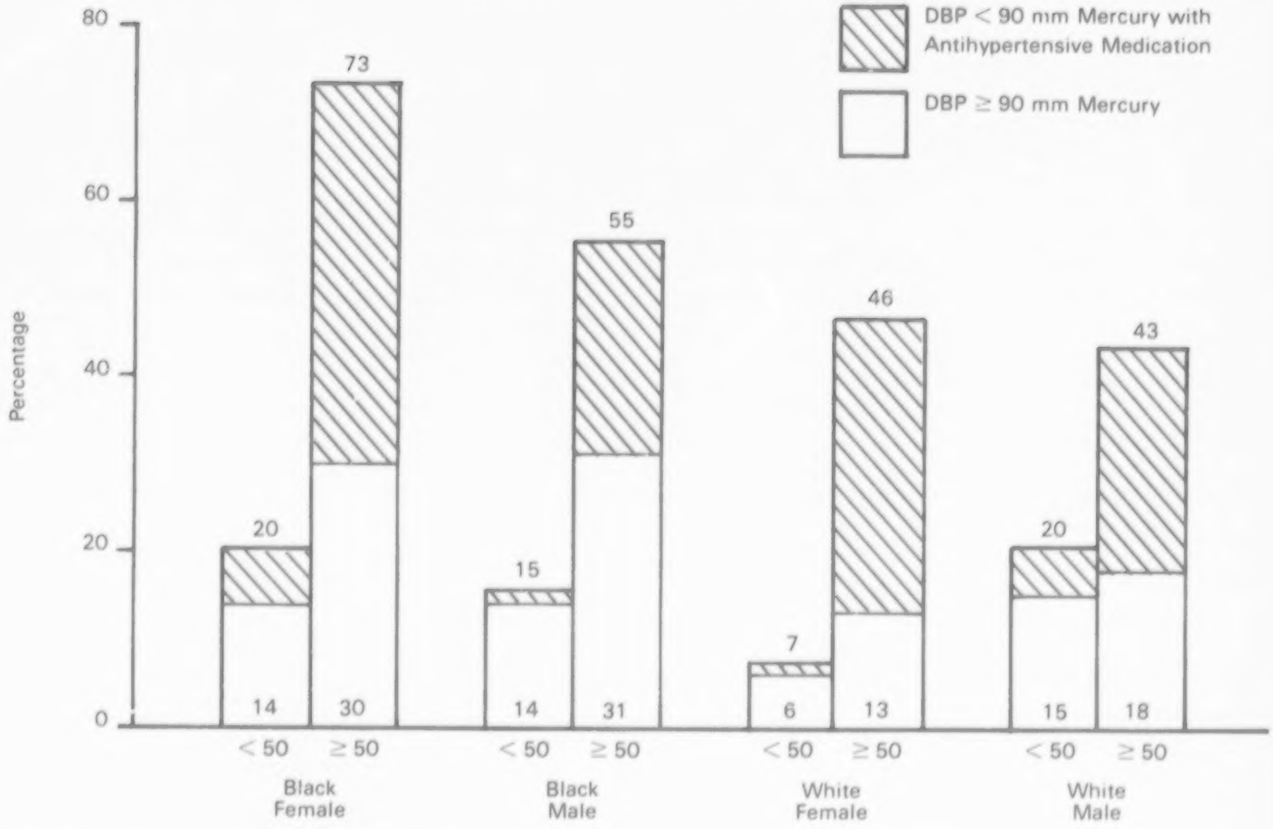
GRAPH 10-1
HYPERTENSION ACTIVITY
FISCAL YEAR 1981



GRAPH 10-2
HYPERTENSION PROGRAM SERVICE GROWTH
1975-1981



GRAPH 10-3
HYPERTENSIVES OF PROJECT HEART
PERCENT OF SCREENED POPULATION BY AGE



Note: DBP indicates diastolic blood pressure.

appreciation days such as the ones that occurred in Selma and Anniston. During ceremonies which were usually attended by councilmen, mayors and other local dignitaries, patients under good control were awarded certificates. Refreshments were donated.

As fiscal year 1981 came to a close, many new levels had been achieved and the credit goes to the taxpayers, community support and the dedicated program clinicians who took time from their private practices to serve those who could not otherwise receive their care.

Immunization Division

Alabama was free of indigenous measles during calendar year 1981. Only two cases were reported in the state, these being in siblings who were infected in Saudi Arabia. The Alabama Immunization Program proudly feels that a measles free state not only puts Alabama in the forefront of the nationwide effort to eliminate indigenous measles by October 1, 1982, but also indicates the efficacy of past public health programs in achieving high levels of immunity among Alabama's youth populations. Table 10-2

TABLE 10-2
VACCINE USAGE
1971-1981

Year	Diphtheria	Tetanus	Pertussis	Polio	Measles	Rubella	Mumps
1971	193,810	216,950	156,885	137,046	50,008	151,772	0
1972	184,391	202,647	150,147	150,778	55,347	61,403	0
1973	168,519	184,163	138,804	147,626	46,068	47,948	0
1974	212,358	224,409	180,735	210,328	59,597	62,252	0
1975	197,090	209,602	170,609	194,778	50,614	51,106	0
1976	183,982	196,174	154,401	173,260	43,299	43,535	0
1977	202,468	213,344	172,820	191,293	45,247	42,939	15,053
1978	321,452	333,889	164,901	336,955	125,833	64,322	219,676
1979	208,248	208,248	155,379	160,466	79,862	61,844	96,263
1980	356,499	356,499	175,325	311,826	152,989	161,307	219,731
1981	187,738	187,738	156,600	183,040	42,759	43,889	46,494

shows how much public health vaccine has been administered during the last ten years in such programs.

Other highlights of 1981 include expansion of surveillance activities (especially for measles), completion of several surveys and assessments, implementation of the hospital based education program for new mothers, decentralization of program field staff and discontinuation of the influenza program.

Maintenance of no incidence of measles in Alabama or minimal spread of the disease in case of a sporadic outbreak is contingent upon an increasingly sensitive surveillance system and a firm plan of action should a case of measles be reported. During 1981 the Alabama Immunization Program expanded the number of counties reporting suspect communicable disease activity to forty-three so that all border counties and many interior counties are now involved in active surveillance activities. Although the system was originally designed to monitor incidence of all childhood vaccine preventable diseases, during 1981 it was keyed toward measles, especially including negative reporting. Any diagnosed or suspect case of measles is reported by telephone immediately to the county health department who in turn contacts the Immunization Program office in Montgomery. An investigation is begun without delay, including a request for acute and convalescent serologic specimens and consultation with the parents and/or the provider of medical care who diagnosed measles. The surveillance system is designed to detect measles in the first generation and contain possible second generational spread.

To enchance the effectiveness of the surveillance system, a staff member from the Immunization Program office in Montgomery was designated as the epidemiologic consultant. This individual, who is a skilled disease investigator, acts as the program's liaison with the Bureau of Epidemiology, the six assistant state health officers and their respective public health areas in all matters concerning disease surveillance and the epidemiologic follow-up of suspect cases ofvaccine preventable diseases.

The Alabama Immunization Program conducts three annual surveys to monitor immunization levels among specific groups of children across the state. Results of the 1981 school entrance survey (shown by county in Table 10-3) indicated that 98.14 percent of children beginning school in kindergarten or first grade were up to date on their immunizations and had a blue "Certificate of Immunization" on file in their school. This is an improvement of 0.11 percent over last year's 98.03 percent. Several counties show 100 percent compliance with the school law, and most children who are in apparent non-compliance have either medical or religious reasons for not being fully immunized. This high level of immunity within the schools where spread of disease has historically been most prevalent is the single most important factor in Alabama's low incidence of all vaccine preventable diseases, especially measles, in 1981.

Results of the annual random sample survey of immunization levels among Alabama's two-year-old population are shown by public health area in Table 10-4. The 80.5 percent of the two-year-olds who are totally protected against childhood diseases is a significant increase over the 71.9 percent who were similarly immunized in 1980. The Immunization Program has been concerned about relatively low levels of protection among these young children during the last three years. The staff have pinpointed two apparent causes: emphasis by public health on immunizing school age children for the 1977-78 National Immunization Initiative and misconceptions by parents that because immunizations are required for school, their young children do not need immunizations

TABLE 10-3
SCHOOL ENTRANCE IMMUNIZATION SURVEY

	1981-82				(For Comparison) 1980-81	
	Enrollment	# with IMM-50*	% with IMM-50*	Ranking	% with IMM-50*	Ranking
PHA 1	24,189	23,570	97.44	6th	96.97	6th
Colbert	1,546	1,441	93.21	67	90.28	67
Franklin	5,057	4,977	98.42	40	98.83	21
Lauderdale	2,022	1,947	96.29	63	98.42	37
Cullman	1,623	1,534	94.52	66	97.09	54
Lawrence	1,081	1,047	96.85	60	92.05	66
Limestone	1,336	1,310	98.05	49	97.70	50
Morgan	1,955	1,926	98.52	35	98.48	36
Jackson	1,290	1,270	98.45	39	98.87	20
Madison	5,175	5,084	98.24	44	98.57	30
Marion	828	819	98.91	27	98.49	35
Marshall	1,687	1,630	96.62	61	92.84	65
Winston	589	585	99.32	13	99.03	18
PHA 2	7,644	7,566	98.98	1st	98.68	2nd
Bibb	586	574	97.95	52	98.73	23
Greene	628	625	99.52	10	98.29	40
Lamar	524	513	97.90	53	100.00	1
Pickens	750	736	98.13	46	99.44	11
Tuscaloosa	4,074	4,044	99.26	17	98.13	44
Fayette	520	516	99.23	18	99.62	8
Hale	562	558	99.29	16	100.00	1
PHA 3	28,341	27,673	97.64	5th	98.81	1st
Blount	863	854	98.96	26	99.29	13
Chilton	887	887	100.00	1	100.00	1
Jefferson	21,522	20,946	97.32	57	98.72	24
St. Clair	1,263	1,218	96.44	62	98.68	27
Shelby	1,954	1,939	99.23	18	98.40	39
Walker	1,852	1,829	98.76	30	99.48	10
PHA 4	13,271	13,077	98.54	3rd	97.94	4th
Calhoun	2,778	2,729	98.24	44	98.57	30
Chambers	1,533	1,507	98.30	43	95.63	59
Cherokee	473	454	95.98	64	97.12	53
Clay	367	364	99.18	20	98.10	46
Cleburne	347	347	100.00	1	100.00	1
Coosa	292	291	99.66	6	98.10	46
DeKalb	1,110	1,093	98.47	38	93.75	64
Etowah	2,455	2,434	99.14	22	98.72	24
Randolph	500	493	98.60	33	99.53	9
Talladega	2,107	2,078	98.62	32	98.42	37
Tallapoosa	1,309	1,287	98.32	42	99.43	12
PHA 5	28,099	27,769	98.83	2nd	98.10	3rd
Autauga	1,067	1,056	98.97	25	98.57	30
Barbour	584	582	99.66	6	99.82	7
Bullock	500	495	99.00	24	96.55	57
Butler	786	782	99.49	11	99.07	17
Coffee	1,421	1,417	99.72	5	99.86	5
Covington	1,529	1,499	98.04	50	98.01	48
Crenshaw	461	460	99.78	4	98.18	42
Dale	1,555	1,524	98.01	51	95.20	61
Elmore	1,385	1,365	98.56	34	98.12	45
Geneva	685	672	98.10	47	99.29	13
Henry	667	658	98.65	31	98.55	33
Houston	3,017	2,981	98.81	28	98.66	28
Lee	2,250	2,237	99.42	12	98.25	41
Lowndes	419	414	98.81	28	97.56	51
Macon	1,054	1,049	99.53	9	98.58	29
Montgomery	8,054	7,933	98.50	36	97.92	49
Pike	1,047	1,038	99.14	22	95.33	60
Russell	1,618	1,607	99.32	13	99.29	13
PHA 6	26,712	26,217	98.15	4th	97.92	5th
Baldwin	2,293	2,274	99.17	21	98.98	19
Conecuh	501	499	99.60	8	94.97	62
Escambia	1,681	1,632	97.09	59	97.01	55
Choctaw	573	569	99.30	15	99.85	6
Clarke	1,135	1,117	98.41	41	97.41	52
Dallas	2,168	2,119	97.74	56	94.51	63
Marengo	935	935	100.00	1	99.12	16
Mobile	14,226	13,954	98.09	48	98.49	34
Monroe	1,006	984	97.81	55	98.16	43
Perry	464	457	98.49	37	98.80	22
Sumter	469	459	97.87	54	98.71	26
Washington	596	580	97.32	57	96.40	58
Wilcox	665	638	95.94	65	96.64	56
State Total	128,256	125,872	98.14	--	98.03	--

*IMM-50—Certificate of Immunization (At least 3 DTP, 3 polio, 1 measles, 1 rubella, & 1 mumps).

TABLE 10-4
TWO-YEAR-OLD IMMUNIZATION LEVELS
FISCAL YEAR 1981

	% Immunized for:						(For Comparison)
	DTP[1]	Polio[2]	Measles[3]	Rubella[3]	Mumps[3]	% Totally Protected[4]	FY 1981 % Totally Protected
PHA 1 (Colbert, Cullman, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, & Winston Cos.)	92.3	83.7	91.3	91.3	90.4	82.7	79.1
Tri-County Health District* (Cullman, Lawrence, Limestone, Morgan Cos.)	89.6	81.3	85.4	84.4	82.3	76.0	71.3
Northwest Al. Health District* (Colbert, Franklin & Lauderdale Counties)	94.2	88.3	93.2	93.2	93.2	88.3	66.7
Madison County*	96.3	94.5	96.3	93.5	92.6	88.9	91.4
PHA 2 (Bibb, Fayette, Greene, Hale, Lamar, Pickens, & Tuscaloosa Counties)	84.5	79.1	81.4	81.4	81.4	75.0	66.0
Tuscaloosa County*	85.5	79.4	78.6	78.6	78.6	68.7	70.3
PHA 3 (Blount, Chilton, Jefferson, St. Clair, Shelby & Walker Cos.)	99.1	92.8	97.3	97.3	97.3	92.8	76.0
Jefferson County*	98.3	92.3	96.6	96.6	96.6	91.5	80.2
PHA 4 (Calhoun, Chambers, Cherokee, Clay, Cleburne, Coosa, DeKalb, Etowah, Randolph, Talladega, & Tallapoosa Cos.)	91.1	87.4	92.6	92.6	92.6	83.7	66.9
PHA 5 (Autauga, Barbour, Bullock, Butler, Coffee, Covington, Crenshaw, Dale, Elmore, Geneva, Henry, Houston, Lee, Lowndes, Macon, Montgomery, Pike, & Russell Cos.)	89.0	76.3	84.7	83.9	84.7	72.9	74.8
Montgomery County*	90.2	84.6	81.3	82.1	81.3	74.8	63.6
PHA 6 (Baldwin, Choctaw, Clarke, Conecuh, Dallas, Escambia, Marengo, Mobile, Monroe, Perry, Sumter, Washington, & Wilcox Counties)	87.3	83.3	84.1	84.1	84.1	73.0	63.9
Mobile County*	88.7	81.5	87.1	87.1	87.1	76.6	75.4
STATE FY 1982	91.5	84.4	89.3	89.2	89.1	80.5	
(For Comparison) FY 1981	89.7	77.5	89.2	88.0	86.6	71.9	

[1] 3 or more injections

[2] 3 or more doses

[3] 1 injection

[4] 3 DTP, 3 Polio, 1 Measles, 1 Rubella, 1 Mumps

*Separate surveys were conducted in these metropolitan areas until they begin school. Results of the 1981 survey, indicating that many more parents are having their young children immunized on the schedule recommended by the Alabama Department of Public Health and the American Academy of Pediatrics, establish the effectiveness of both statewide and local information and education activities in making parents more aware of this schedule for immunizing their pre-school age children.

The Alabama Immunization Program has two instruments for monitoring the immunization levels of children attending licensed child care centers: an annual random, onsite record check conducted by program field staff during October and November and a request for information mailed to every licensed center as a cooperative effort of the Department of Public Health and the Department of Pensions and Securities. Results of the onsite assessment are broken down by public health area and by antigen in Table 10-5. Results of the mail-out give a picture of immunization levels in child care centers from a slightly different perspective as they are broken down by age groups. In 1981, 92.7 percent of the children under age two had received all the immunizations appropriate for their age group while 94.3 percent of those age two through five have been similarly immunized. Results of both surveys show improvements over 1980 results. Consistency of the results compiled from the two separate surveys validate the reliability of each as a measuring device.

TABLE 10-5
DAY CARE CENTER SURVEY PERCENT IMMUNIZED FISCAL YEAR 1981

	DTP	Polio	Measles	Rubella	Mumps
PHA I	97.6	96.6	96.8	96.8	96.6
PHA II	94.4	90.6	93.0	93.0	92.7
PHA III	92.4	91.9	91.5	91.5	92.4
PHA IV	90.4	90.0	90.0	90.0	90.0
PHA V	93.8	92.1	95.0	95.0	95.1
PHA VI	98.1	97.0	98.3	98.3	98.3
State	94.4	93.0	94.1	94.1	94.1

The hospital based immunization education program for new mothers, which was developed in 1980 as a cooperative project of the Alabama Hospital Association and the Alabama Immunization Program, was implemented during 1981. Materials for distribution to postpartum mothers on the maternity floor were either mailed or taken to every hospital offering obstetrical services in the state. Program staff set up special visits with administrators and education directors of large metropolitan and regional hospitals. Many hospitals began incorporating the materials in their new mother packets immediately. Others have needed more encouragement.

Follow-up of high risk children was also implemented. A card containing a simple worded message was developed to be mailed to selected mothers approximately two months after birth.

When the organizational structure of the State Health Department was decentralized during the latter half of 1981, the organizational structure of the Immunization Program was changed as well. Those employees who formerly served as field representatives under the supervision of the Immunization Program are now working under the supervision of the assistant state health officers within their respective public health areas (PHA). Six of these employees were designated as the PHA immunization coordinators. So that all PHA personnel such as immunization representatives, nurses and clerks understand and are working toward meeting statewide and nationwide immunization goals, a format for annual immunization workshops was developed during 1981. The first of these workshops was held in PHA IV during December.

In August 1981 the Influenza Program was discontinued because all federal support was withdrawn from Alabama as well as other states. The program was considered marginally successful in Alabama, with approximately 38,000 doses of influenza vaccine administered through public health clinics from September 1980-February 1981. Influenza surveillance has been maintained with influenza activity being detected through weekly telephone calls made to selected sites.

Tuberculosis Control Division

The number of new cases of tuberculosis in Alabama reached a new low in 1981. Even though there has been some fluctuation, the general trend in recent years has been downward. The 640 new cases of tuberculosis reported in Alabama during 1981 were almost 50 percent below the number reported 10 years ago. There was a 3.5 percent decrease from 1980. Tables 10-6 and 10-7 and graphs 10-4 through 10-8 report different aspects of new cases.

The rate of new cases of tuberculosis has also decreased. The 1981 rate of 16.2 per 100,000 population was down from 17.3 in 1980 and 26.3 ten years ago. Even with a decrease in rate, Alabama remained above the national average but has moved closer to the rate for the United States. Graph 10-9 illustrates the trend. According to the latest information available from the Centers for Disease Control, Alabama ranked sixth in new tuberculosis case rates. Table 10-8 shows how Alabama has ranked in recent years.

The reduction in new cases of tuberculosis occurred in both pulmonary and extrapulmonary cases. The 51 cases of extrapulmonary tuberculosis is 13 fewer than reported in 1980. Of the total number of tuberculosis cases reported in 1981, 8 percent were extrapulmonary. Table 10-9 gives the number of each since 1965.

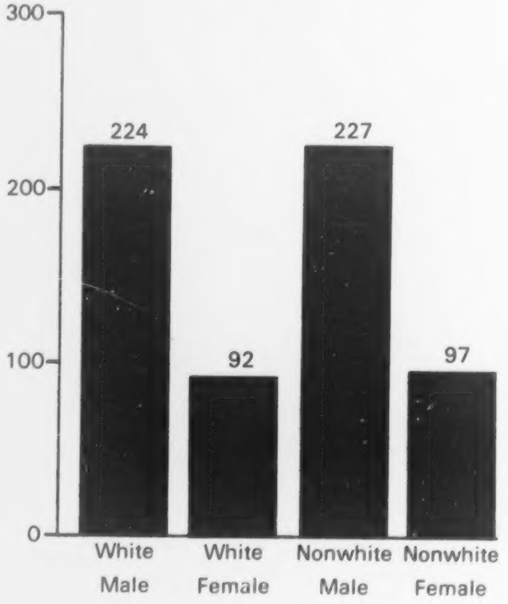
TABLE 10-6
NEW TUBERCULOSIS CASES BY RACE AND SEX
1960-1981

Year	Total	White			Nonwhite		
		Total	Male	Female	Total	Male	Female
1960	1,400	814	515	299	586	347	239
1961	1,357	718	478	240	639	369	270
1962	1,266	698	479	219	568	336	232
1963	1,326	716	478	238	610	385	225
1964	1,259	691	446	245	568	349	219
1965	1,417	748	525	223	669	413	256
1966	1,214	565	398	167	649	387	262
1967	1,379	618	423	195	761	463	298
1968	1,338	599	410	189	739	455	284
1969	1,203	508	353	155	695	421	274
1970	1,166	543	383	160	623	400	223
1971	985	455	319	136	530	321	209
1972	918	459	310	149	459	320	139
1973	790	361	244	117	429	288	141
1974	785	351	239	112	434	293	141
1975	780	354	237	117	426	289	137
1976	824	392	280	112	432	292	140
1977	704	314	214	100	390	269	121
1978	672	317	229	88	355	236	119
1979	644	308	204	104	336	220	116
1980	663	296	210	86	367	254	113
1981	640	316	224	92	324	227	97

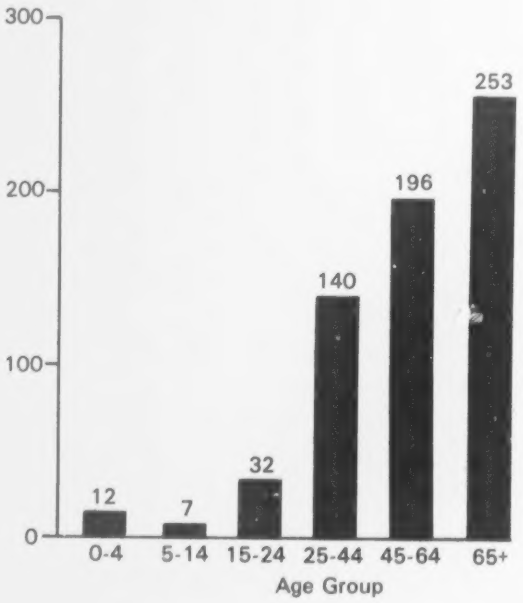
TABLE 10-7
NEW TB CASES BY SOURCE OF ORIGINAL REPORT

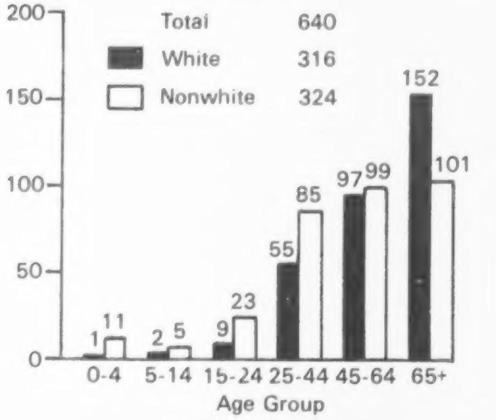
	No. Cases	% of Total Reported
Penal & Mental Institutions	3	.5
General Hospitals	177	27.6
Veterans' Hospitals	23	3.6
County Health Departments	301	47.0
Out-of-State Health Departs.	2	.3
Private Physicians	122	19.1
Death Certificates (or same day as death)	8	1.3
Military	0	0
All Other Sources	4	.6
GRAND TOTAL	640	100.0

GRAPH 10-4
NEW TUBERCULOSIS CASES REPORTED BY RACE & SEX

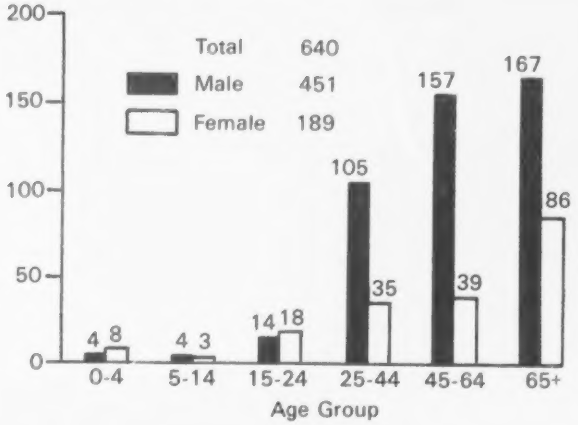


GRAPH 10-5
NEW TUBERCULOSIS CASES BY AGE GROUP



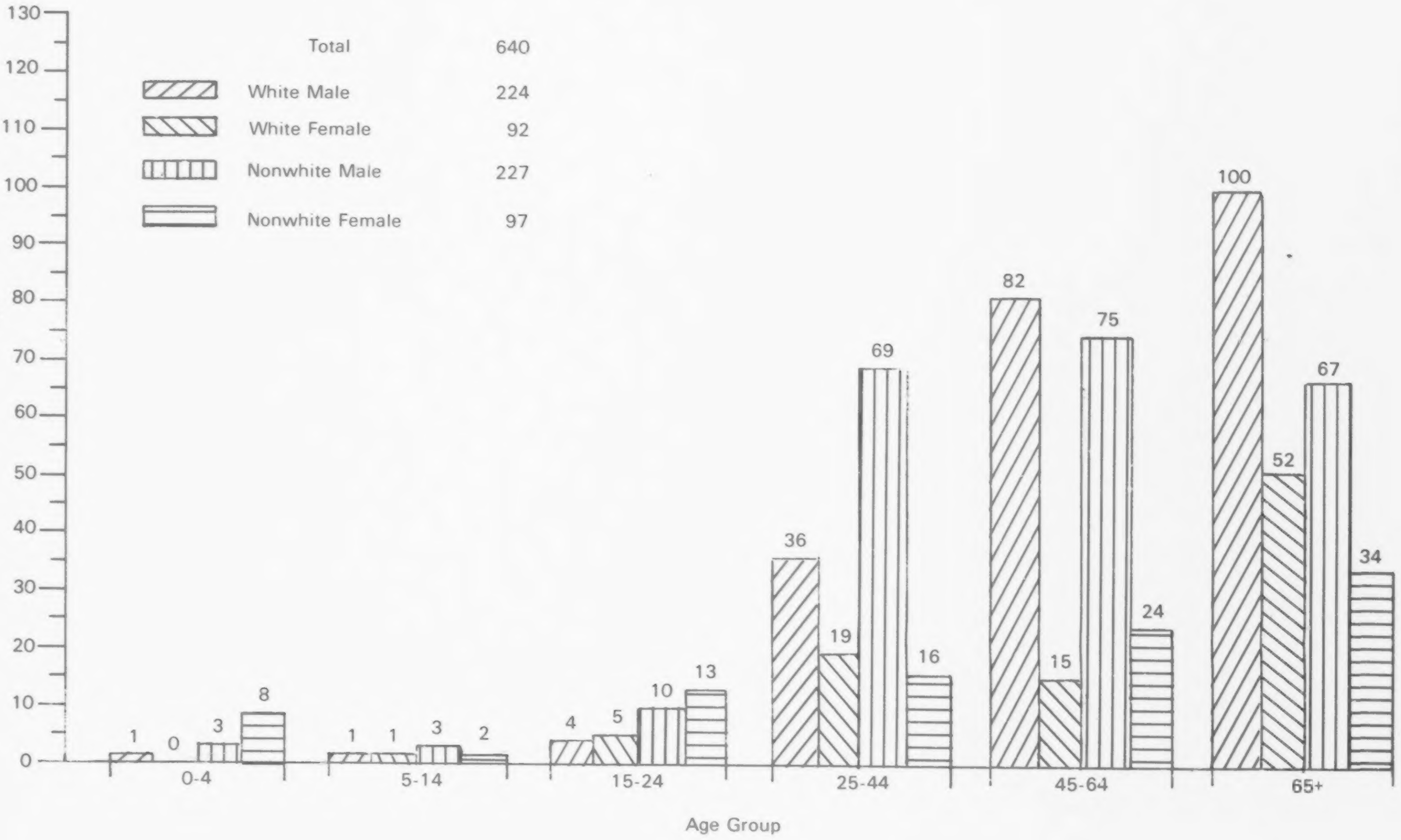


GRAPH 10-6
NEW TUBERCULOSIS CASES BY AGE GROUP & RACE



GRAPH 10-7
NEW TUBERCULOSIS CASES BY AGE GROUP & SEX

GRAPH 10-8
NEW TUBERCULOSIS CASES BY AGE GROUP, RACE & SEX



GRAPH 10-9
ALABAMA AND UNITED STATES
TB CASE RATES
1967-1981

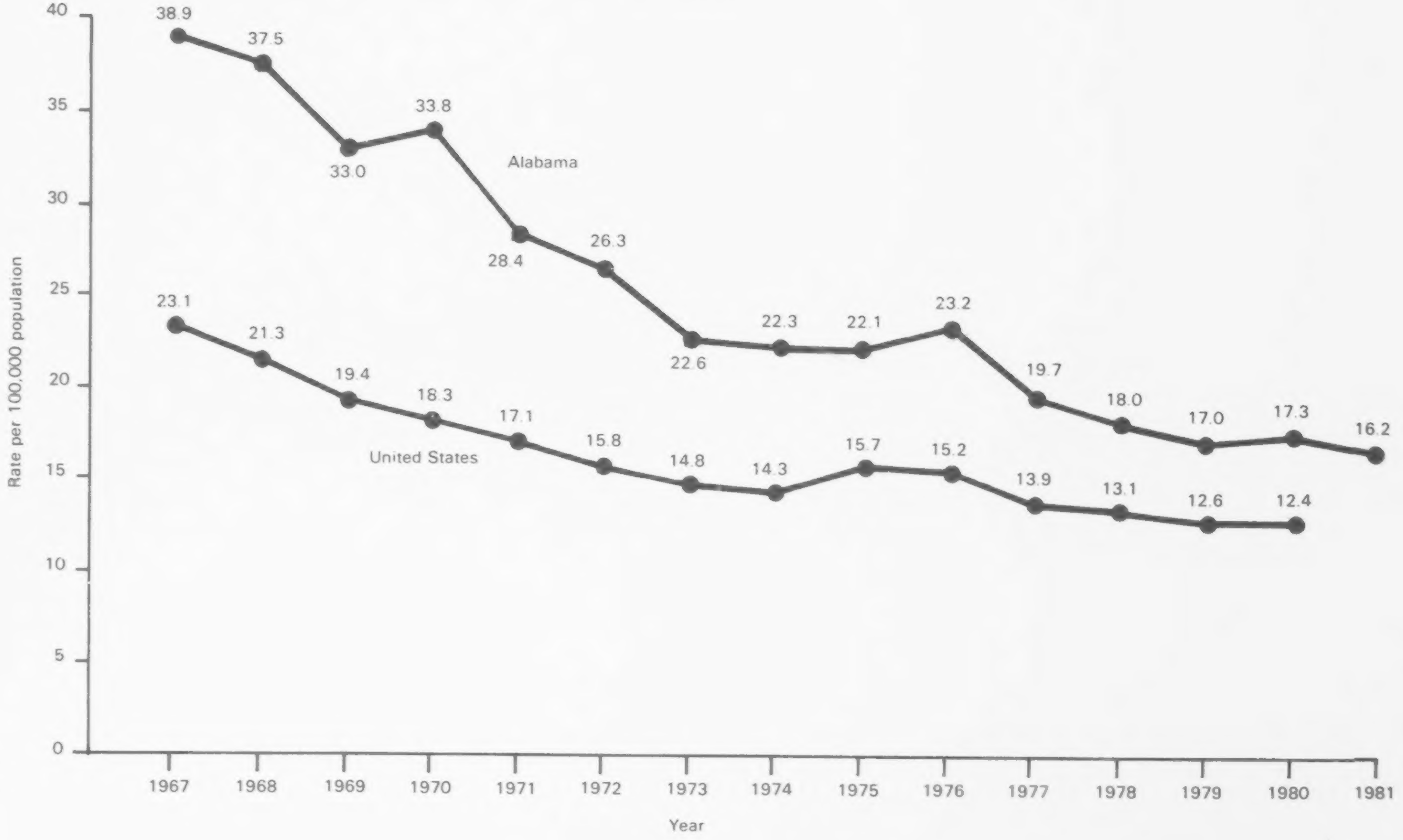


TABLE 10-8
ALABAMA TUBERCULOSIS CASES, CASE RATES, AND RANK IN THE U.S.

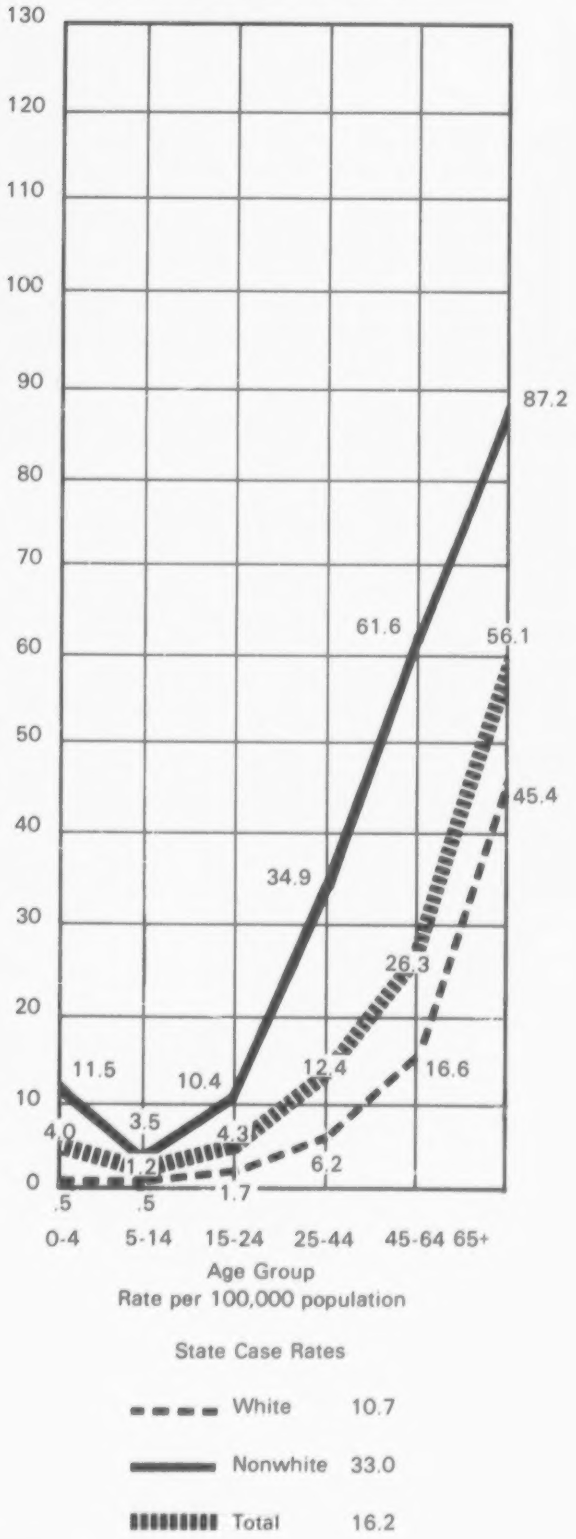
Year	Cases	Rate	Rank
1960	1,302	39.8	—
1961	1,313	39.5	10
1962	1,164	35.1	12
1963	1,326	39.3	7
1964	1,259	36.7	8
1965	1,417	40.6	3
1966	1,214	34.6	7
1967	1,379	38.9	3
1968	1,338	37.5	3
1969	1,203	33.0	3
1970	1,166	33.8	3
1971	985	28.4	3
1972	918	26.3	3
1973	790	22.6	5
1974	785	22.3	4
1975	780	22.1	7
1976	824	23.2	3
1977	704	19.7	9
1978	672	18.0	10
1979	644	17.0	9
1980	663	17.3	6
1981	640	16.2	*

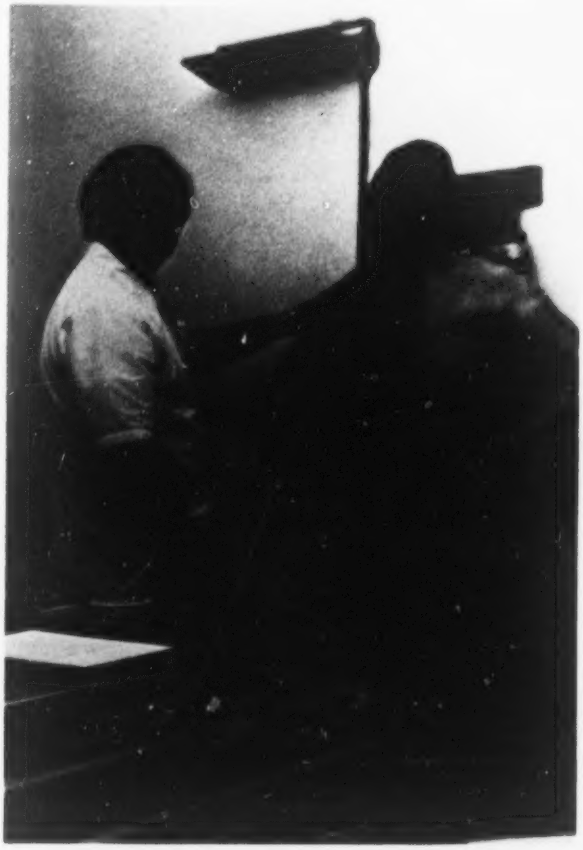
*Rank not available at this time

TABLE 10-9
TUBERCULOSIS CONTROL DIVISION
PULMONARY & EXTRAPULMONARY CASES
1965-1981

Year	Pulmonary Cases	Extrapulmonary Cases	Total TB Cases Reported
1965	1,374	43	1,417
1966	1,162	52	1,214
1967	1,322	57	1,379
1968	1,281	57	1,338
1969	1,129	74	1,203
1970	1,111	55	1,166
1971	909	76	985
1972	859	59	918
1973	735	55	790
1974	721	64	785
1975	719	61	780
1976	760	64	824
1977	634	70	704
1978	601	71	672
1979	580	64	644
1980	599	64	663
1981	589	51	640
TOTAL	15,085	1,037	16,122

GRAPH 10-10
NEW TUBERCULOSIS CASE RATES
BY AGE GROUP & RACE

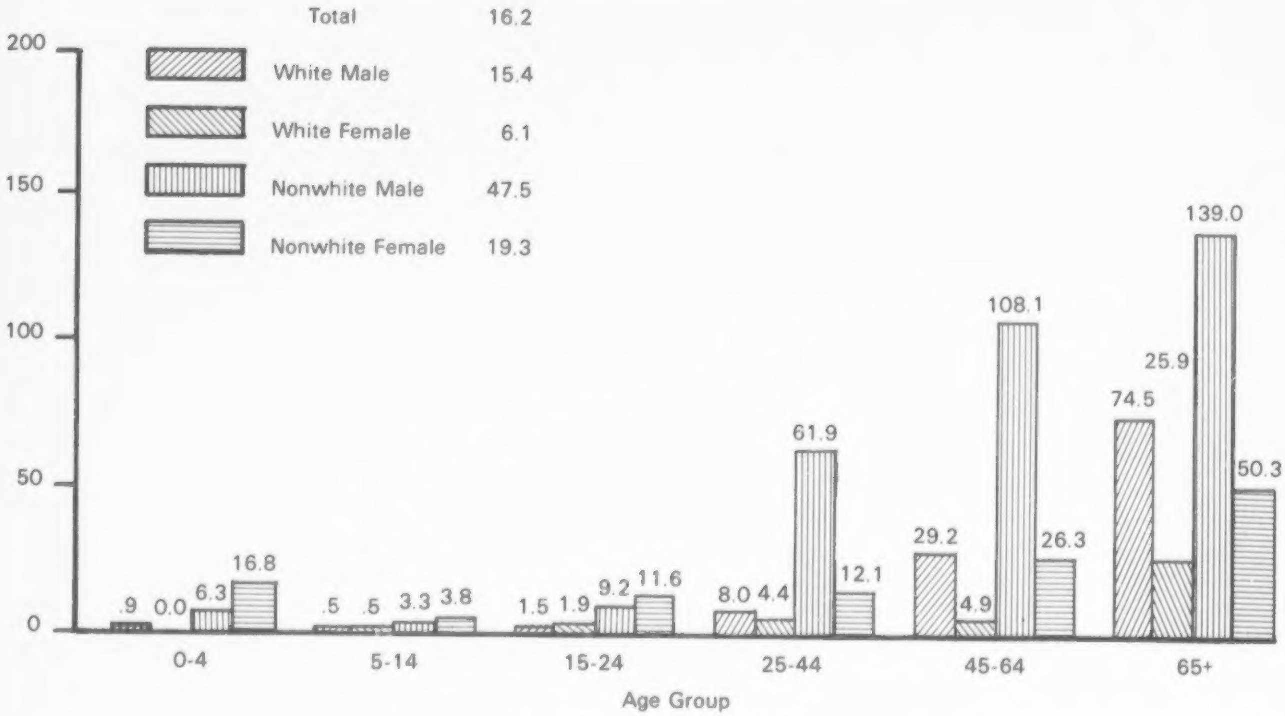




In the number of new cases of tuberculosis, race appeared to be insignificant with the number of cases being about even for white and nonwhite. However the case rate per 100,000 population for nonwhites continued to be three times greater than for whites, 33.0 and 10.7 respectively. With only 25 percent of the state's population, nonwhites had slightly more than half of the new cases of tuberculosis reported in 1981. Males continued to comprise about two-thirds of the new cases reported. Approximately 70 percent of the new cases were for persons 45 years of age or older. In 1981 the case rate by race and sex were: 47.5 for nonwhite males, 19.3 for nonwhite females, 15.4 for white males and 6.1 for white females. Graphs 10-10 and 10-11 give the 1981 rates by race, age and sex.

Case rates ranged from highs of 44.6, 35.6, 34.4, 31.7 and 29.9 in Dallas, Choctaw, Limestone, Etowah and Lamar counties respectively to no cases reported in Dale, Fayette, Geneva, Henry, Monroe, Perry and Wilcox counties. Jefferson County with nearly 20 percent of the state's population reported one-fifth of the cases in the state in 1981. New case rates by public health areas are as follows: PHA I, 17.2; PHA II, 22.1; PHA III, 17.0; PHA IV, 17.7; PHA V, 9.9; and PHA VI, 18.2. Table 10-10 gives details by public health area.

GRAPH 10-11
NEW TUBERCULOSIS CASE RATE BY AGE GROUP, RACE & SEX



Rate per 100,000 population

There were approximately 1,155 diagnosed cases and atypicals receiving medical supervision by county health departments and contact hospitals at the end of the year. By adhering to the contract hospital admission guidelines, the program was able to manage approximately half of the newly reported cases on an outpatient basis. All cases completing the prescribed multiple drug therapy continued to be recommended for closing to medical supervision.

Although private physicians and hospitals are involved in the initial diagnosis and reporting of approximately two-thirds of the new cases, most patients are subsequently referred to the county health department clinics for treatment as well as contact indentification, investigation and preventive treatment. Consequently nearly 95 percent of the known cases, contacts and suspects in the state receive their medical supervision through the county health department clinics and contract hospitals. The continued shift of emphasis from inpatient to outpatient care, coupled with supervised therapy, continued to place a great burden on the county health department outpatient treatment program. Tuberculosis information indicates that today 98 percent of the tuberculosis patient's total treatment is received on an outpatient basis with only 2 percent of the patients being treated as inpatients.

County health departments reported 145,193 tuberculin tests performed in 1981. Of this total 83 percent were read, with 6,581 having results of 10mm or greater for an overall reactor rate of 5.47 percent. Positive skin test rates ranged from a low of 0.9 percent among persons from infancy through four years of age to 14 percent for persons 65 years of age or older. For close contacts examined in 1981, the infection rate was 35.6 percent while for others the infection rate was 7.2 percent. Positive tuberculin reactor rates among blacks continued to be twice as great as for whites. Graph 10-12 shows the reactor rates. Alabama's tuberculin positive skin test rates by age group and race applied to the total population reveals, the infected population totals to be 276,581 individuals. The estimated number of infected persons ranges from a low of nearly 12,643 in persons under 14 years of age to a high of 81,709 for persons in the 45 through 64 year old age bracket. Graph 10-13 gives a breakdown by age.

The State Tuberculosis Program continued to stress that low priority be placed on the tuberculosis examination of food handlers and similar groups in connection with job requirements. Most county health departments have been performing the work primarily as a result of tradition rather than legal requirements or effectiveness. The TB Control

TABLE 10-10
TB CONTROL ACTIVITIES BY PUBLIC HEALTH AREA

	New TB Cases Reported		County Rank in No. Cases Reported	New TB Case Rate per 100,000 Pop.		Total TB Cases in File as of December 31		Population
	1980	1981	1981	Rate	Rank	1980	1981	July, 1981
PHA I								
Colbert	9	4	34	7.3	48	14	14	55,130
Cullman	6	3	43	4.8	56	15	7	62,792
Franklin	6	4	31	13.8	27	14	9	28,903
Jackson	9	8	18	15.1	25	7	12	52,933
Lauderdale	14	22	8	26.8	8	17	35	82,053
Lawrence	4	5	27	16.4	22	7	9	30,531
Limestone	10	16	10	34.4	3	17	14	46,544
Madison	35	42	3	21.2	14	65	85	198,270
Marion	3	3	40	9.7	41	7	6	30,822
Marshall	0	15	11	22.4	13	15	19	67,048
Morgan	11	7	21	7.6	47	17	16	91,847
Winston	5	3	37	13.3	30	6	10	22,616
TOTAL	121	132	2	17.2	4	201	236	769,489
PHA II								
Bibb	5	2	48	12.5	36	8	8	15,962
Fayette	2	0	64	0	64	5	1	19,129
Greene	2	1	52	9.0	43	6	6	11,067
Hale	2	3	36	19.3	15	4	9	15,569
Lamar	1	5	26	29.9	5	3	8	16,718
Pickens	6	6	23	27.7	7	8	10	21,626
Tuscaloosa	36	36	4	25.7	10	72	50	140,153
TOTAL	54	53	6	22.1	1	106	92	240,224
PHA III								
Blount	3	5	28	13.3	29	3	2	37,660
Chilton	5	4	32	12.8	32	12	7	31,291
Jefferson	159	128	1	19.0	16	217	195	674,468
St. Clair	8	10	14	23.3	12	14	14	42,861
Shelby	6	6	25	8.6	45	13	14	69,831
Walker	9	4	35	5.7	54	25	16	70,211
TOTAL	189	157	1	17.0	5	284	248	926,322
PHA IV								
Calhoun	20	22	9	18.5	17	35	27	118,666
Chambers	3	1	60	2.5	60	5	15	39,546
Cherokee	6	1	56	5.2	55	6	2	19,154
Clay	3	2	47	14.5	26	5	5	13,837
Cleburne	0	2	45	15.6	23	1	2	12,795
Coosa	2	2	44	17.4	19	1	3	11,467
DeKalb	6	7	19	12.7	34	6	9	55,118
Etowah	24	33	5	31.7	4	36	44	104,171
Randolph	2	2	49	9.9	40	7	2	20,293
Talladega	12	13	12	17.4	20	15	10	74,895
Tallapoosa	5	5	29	12.7	33	5	7	39,281
TOTAL	84	90	4	17.7	3	122	126	509,223

TABLE 10-10 (continued)
TB CONTROL ACTIVITIES BY PUBLIC HEALTH AREA

	New TB Cases Reported		County Rank in No. Cases Reported	New TB Case Rate per 100,000 Pop.		Total TB Cases in File as of December 31		Population
	1980	1981	1981	Rate	Rank	1980	1981	July, 1981
PHA V								
Autauga	2	1	59	3.0	59	7	4	33,234
Barbour	3	1	58	4.0	58	7	3	25,032
Bullock	2	1	51	9.6	42	5	4	10,422
Butler	1	1	57	4.6	57	3	3	21,639
Coffee	3	3	41	7.7	46	3	8	38,991
Covington	3	4	33	10.8	39	9	12	37,196
Crenshaw	2	1	53	7.0	50	5	5	14,225
Dale	3	0	67	0	67	6	4	47,175
Elmore	5	3	42	6.7	51	13	11	44,606
Geneva	4	0	66	0	66	2	3	24,544
Henry	0	0	63	0	63	2	3	15,558
Houston	16	13	13	16.9	21	19	29	76,890
Lee	3	10	16	12.8	31	13	13	78,161
Lowndes	1	2	46	15.3	24	3	4	13,078
Pike	2	2	50	7.0	49	5	6	28,426
Macon	3	3	39	11.1	38	15	16	27,078
Montgomery	46	27	6	13.5	28	74	97	200,694
Russell	6	6	24	12.6	35	13	12	47,601
TOTAL	105	78	5	9.9	6	204	237	784,790
PHA VI								
Baldwin	4	7	20	8.7	44	10	12	80,823
Choctaw	0	6	22	35.6	2	4	5	16,870
Clarke	3	8	17	28.8	6	4	10	27,826
Conecuh	2	1	54	6.3	52	2	3	15,914
Dallas	16	24	7	44.6	1	32	49	53,816
Escambia	1	10	15	25.8	9	13	13	38,827
Marengo	2	3	38	11.9	37	3	4	25,201
Mobile	72	66	2	17.8	18	114	105	370,263
Monroe	1	0	65	0	65	3	1	22,872
Perry	2	0	62	0	62	1	2	14,964
Sumter	3	4	30	23.7	11	3	5	16,899
Washington	1	1	55	5.9	53	1	2	16,894
Wilcox	3	0	61	0	61	7	2	14,561
TOTAL	110	130	3	18.2	2	197	216	715,730
TOTAL	663	640		16.2		1,114	1,155	3,945,778

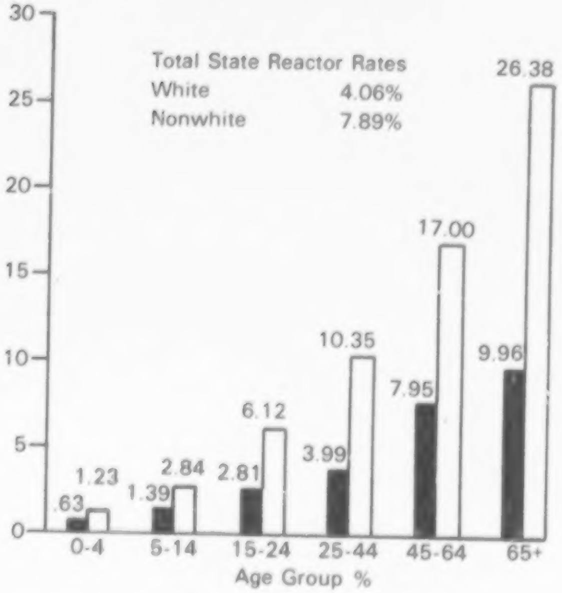
Program continued to recommend that these examinations be discontinued.

The Tuberculosis Control Division continued contracts with seven general hospitals for the care of inpatients during 1981. The contract hospitals recorded 295 admissions, 309 discharges, and 5,840 patient days during the year. The average hospital patient stay was 18.9 days in 1981.

The average contract hospital cost was approximately $200 per patient day. The cost for the state tuberculosis budget was approximately $109 per patient day with third party insurance paying the difference. The average cost per patient hospitalized in 1981 was approximately $3,590. Tables 10-11, 10-12 and 10-13 summarize the contract hospital activities.

The contract for recalcitrant patients was renegotiated with the Board of Corrections in 1981. The contract

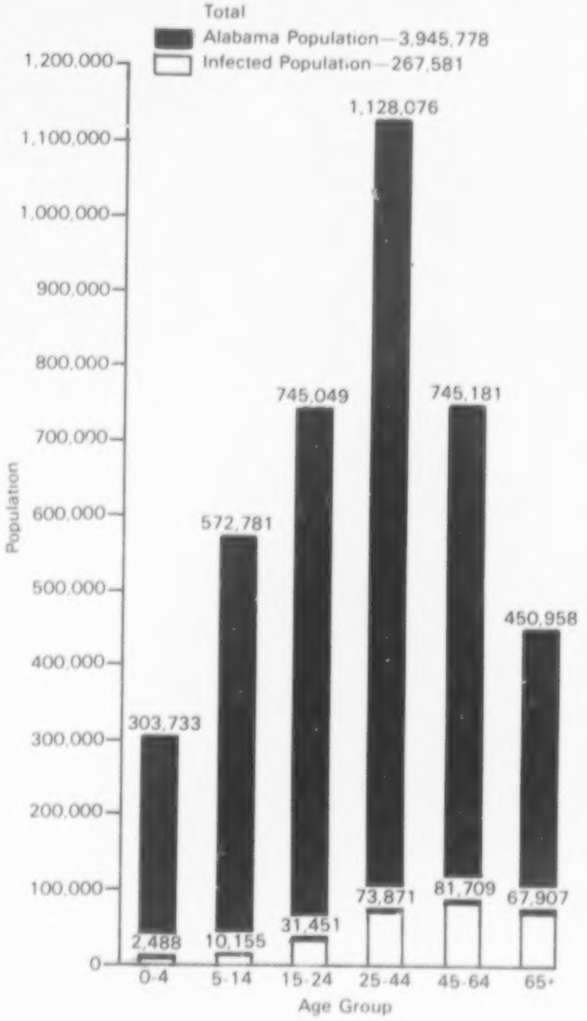
GRAPH 10-12
TUBERCULIN POSITIVE REACTOR RATE
BY AGE GROUP AND RACE



provides for one bed for a male patient at Kilby Correctional Facility and one bed at the Julia Tutwiler Facility for a female as needed. The court ordered program is only utilized for the extremely difficult, non-motivational and non-complying tuberculosis patient. The Board of Corrections' beds would be used as a last resort if the court determines that the patient is infectious and a definite public health hazard to his family and the community. The patient is kept for a minimum of six weeks, and failure to report to the county health department outpatient clinic as recommended after discharge will result in the patient being rehospitalized at the correction facility. Patients admitted under the recalcitrant program remain under court order until completion of 12 months of multiple drug therapy. The contract serves primarily as a deterrent as only three patients were admitted under the court ordered program during the year. The three patients had a cumulative total of 361 days with an average stay of 120 days.

The contract hospital program cost the state $700,000 in 1981 compared to nearly $5,000,000 in 1967 when the seven district tuberculosis hospitals were in existence. This is a tremendous savings of over $4,000,000 per year to the state. It is even more remarkable when the inflationary trends are considered.

GRAPH 10-13
TOTAL POPULATION AND PERSONS INFECTED WITH
TUBERCLE BACILLI BY AGE GROUP



The preventive therapy program continued with increased emphasis placed on close contacts and other persons at high risk of developing tuberculosis. During 1981, 5,783 persons were placed on isoniazid preventive therapy bringing the total to 121,199 started on the program since 1965. The preventive therapy program has been extremely effective in Alabama, and it is believed that this activity has been a major factor in the reduction of new cases and case rates in recent years.

The Tuberculosis Control Program was decentralized along with many other public health programs during the year. A Tuberculosis Control Program manager for each public health area was appointed to supervise tuberculosis personnel and manage tuberculosis prevention problems in the areas. The managers work closely with the area TB physician coordinators and the assistant state health officers to ensure that area and state tuberculosis control program objectives are achieved.

During the year the State TB Medical Advisory Council approved new program guidelines regarding short course chemotherapy for diagnosed cases of tuberculosis. The guidelines recommend as a standard regimen 9 to 12

TABLE 10-11
CONTRACT HOSPITAL INFORMATION
JANUARY 1981-DECEMBER 1981

Hospital	Admissions	Discharges	Patient Days	Average Pt. Stay
Cooper Green Hospital Birmingham, Alabama	68	73	1,166	16.0 days
Druid City Hospital Tuscaloosa, Alabama	62	60	884	14.7 days
Eliza Coffee Hospital Florence, Alabama	18	17	252	14.8 days
Lanier Mem. Hospital Langdale, Alabama	2	2	46	23.0 days
Mountain View Hosp. Gadsden, Alabama	98	106	2,853	26.9 days
St. Margaret's Hospital Montgomery, Alabama	14	15	184	12.3 days
Univ. of So. Alabama Medical Center Mobile, Alabama	59	58	885	15.3 days
TOTAL	321	331	6,270	18.9 days
Board of Corrections	3	3	361	120.3 days

months of INH and Rifampin for new cases of tuberculosis. Cases must have at least six months of treatment after the culture becomes negative. These guidelines were approved by the State Committee of Public Health in October 1981.

Activities of the TB Program Nurses—The Tuberculosis Program nurses served as coordinators of the tuberculosis program in the county health departments and thereby assisted them with tuberculosis work. They consulted with private physicians, hospitals and other agencies about tuberculosis.

These nurses made 2,831 visits to the county health departments for priority tuberculosis control activities. They provided nursing services in 806 TB outpatient and regular chest clinics.

The nurses collected 7,785 sputum specimens by the aerosol induction technique and administered 18,557 Mantoux tuberculin skin tests.

Tuberculosis patients and their families received 883 home visits, and the nurses made 763 other visits to nursing homes, schools, industries and private physicians in relation to tuberculosis control activities.

The program nurses conducted a total of 52 in-service education programs, and 566 persons attended.

Activities of the Field Representatives—Field investigators emphasized cases at home, contact to new cases, suspects and high risk tuberculin reactors.

During 1981 the investigators recommended that 8,623 cases, contacts, suspects and reactors be returned to medical supervision. Field representatives were unable to locate only 38 or 0.4 percent of them.

Referrals included 3,206 cases, 1,870 contacts to new cases, 585 suspects and 2,296 reactors.

The representatives visited 164 private physicians to obtain current X-ray, sputum and treatment status on delinquent patients. Hospital visits related to tuberculosis control activities totaled 289. Representatives attended 982 county health department chest and outpatient clinics. They also assisted in 110 special X-ray and tuberculin testing surveys throughout the state. A total of 2,513 aerosol sputums was collected.

There were 20,762 Mantoux tuberculin tests administered—19,853 by the Ped-O-Jet technique and 909 with the syringe.

The field representatives attended a tuberculosis therapy workshop in Birmingham on October 20, 1981. The subjects covered were the principles of chemotherapy, side effects, drug interactions, compliance, supervised intermittent therapy and other related topics. This course will further qualify the field representatives for their role in conducting a more effective tuberculosis control program.

Activities of the X-ray Technicians—During 1981 the X-ray technicians assisted in 15 tuberculin skin testing

TABLE 10-12
CONTRACT HOSPITAL INFORMATION
OCTOBER 1, 1980-MARCH 31, 1981

Contract Hospital	Current Bed Allocation at $30 Per Day	Admissions	Discharges	Total Pat. Days	Average Patient Stay	Average Per Diem Cost	Total Hosp. Cost	Average Hosp. Cost Per Pat. Treated
Cooper Green Hospital Birmingham, Alabama	17	35	35	466	13.3	$305.21	$142,230.05	$4,063.72
Druid City Hospital Tuscaloosa, Alabama	14	27	30	401	13.4	248.54	99,665.08	3,322.17
Eliza Coffee Mem. Hosp. Florence, Alabama	2	11	10	115	11.5	205.53	23,635.72	2,363.57
Lanier Memorial Hosp. Langdale, Alabama	1	0	—	—	—	—	—	—
Mountain View Hospital Gadsden, Alabama	15	54	63	1,581	25.1	130.63	206,527.62	3,273.22
St. Margaret's Hospital Montgomery, Alabama	5	12	13	233	17.9	263.43	61,378.06	4,721.39
University of South Ala. Medical Center Mobile, Alabama	9	28	25	368	14.7	267.43	98,412.71	3,936.51
TOTAL	63	167	176	3,164	18.0	$199.70	$631,849.24	$3,590.05
Board of Corrections	1	2	1	85	85.0	—	—	—

TABLE 10-13
HOSPITAL PATIENT ADMISSIONS AND DISCHARGES
1971-1981

Year	1971	1972	1973*	1974	1975	1976	1977	1978	1979	1980	1981
Total Admissions	1,134	1,016	745	668	557	459	473	470	358	364	321
Total Discharges	1,273	1,095	1,016	738	547	512	465	482	357	364	331

*Beginning of General Hospital Contract Program

programs and administered 4,960 tuberculin tests. They held 682 regular and outpatient clinics at the county health departments and performed 20,390 X-ray examinations.

The X-ray technicians maintained all the X-ray film files and skin testing equipment. The chief X-ray technician is responsible for the maintenance of all X-ray and sputum equipment on a statewide basis.

The X-ray technicians also attended the tuberculosis therapy course in Birmingham.

In addition the technicians were trained to conduct field investigation activities on follow-up and medical supervision of tuberculosis cases, contacts, suspects, and reactors and on the proper procedure for collecting the induced sputum.

Division of Venereal Disease Control

Gonorrhea—Even recently gonorrhea was believed to be no worse than a common cold and much easier to cure. It was commonly believed that if a male was infected with gonorrhea, his pain and symptoms would be so obvious that he would eventually seek medical attention. Program controls and emphasis were placed on treating males and prophylactically treating their contacts.

However during the past few years research and program experiences have proven that gonorrhea is not a simple disease but a very complex one often exhibiting no symptoms among males as well as females. Only recently has the severity, nature, and complications of the disease been fully understood and appreciated.

Its complications and damaging aftereffects are much worse than syphilis. In 1981 the Gonorrhea Control Program centered on the following basic program activities:

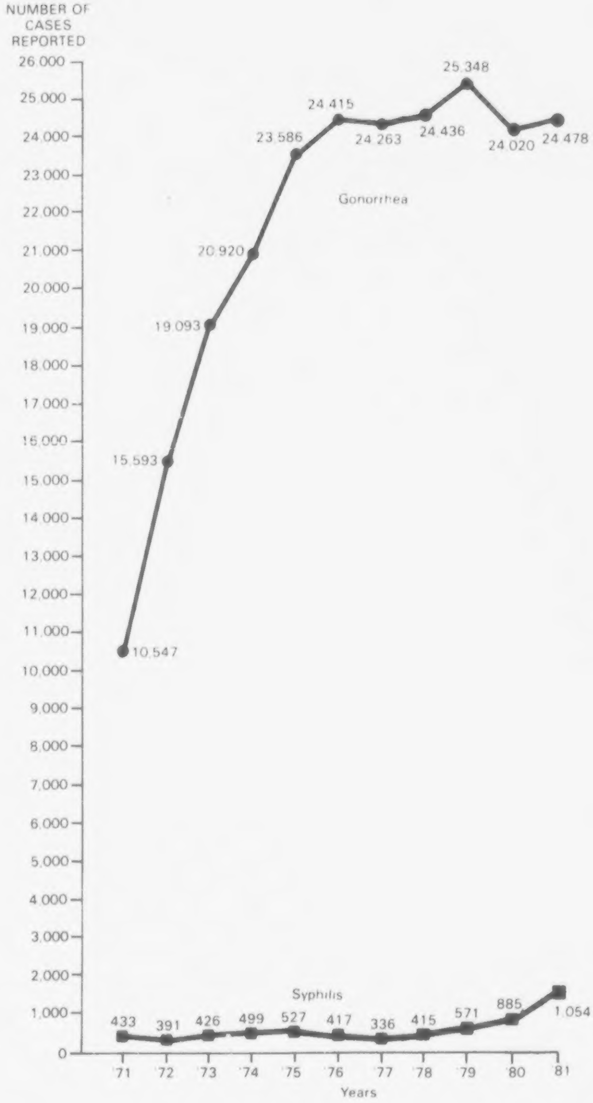
1. All patients were interviewed for sex contacts.
2. All contacts were prophylactically treated.
3. All patients were returned for test of cure cultures.
4. All PID patients were properly treated, interviewed, and followed for ten days and returned for test of cure.
5. All PPNG cases were properly treated, and all contacts prophylactically treated.
6. All patients received information regarding their disease.

During 1981, 24,478 civilian cases of gonorrhea were reported in Alabama for an increase of 1.9 percent over 1980. However in 1980 Alabama had experienced a significant decrease in gonorrhea for the first time in 17 years. The 24,020 cases reported in 1980 were 5.2 percent less than in 1979. Graph 10-14 shows the trend in incidence of gonorrhea as well as syphilis.

In 1981 several program activities were added or expanded to include interviewing all gonorrhea patients for sex contacts. In the past only selected patients were interviewed. All infected patients were asked to return for test of cure cultures, and 15 to 18 percent of them were found to be reinfected. The state clinical laboratory routinely screened all infected persons for Penicillinase Producing Neisseria Gonorrhea. Also a very intensive program was maintained with ten hospital emergency rooms throughout the state to identify PID patients and to ensure that they were all properly treated and followed.

The new and expanded activities resulted in the identification and treatment of at least 2,000 new cases of gonorrhea which likely would not have come to medical attention if these programs had not been initiated. It is believed that the decrease experienced in 1980 was real; and if new programs had not been implemented, there would have been another decrease in 1981. In other words, if the 2,000 cases found because of the expanded programs were subtracted from the total cases reported in 1981, there would have been a total of 22,478, a sizable decrease from 1980.

GRAPH 10-14
ALABAMA SYPHILIS AND GONORRHEA
MORBIDITY TRENDS 1971-1981
(MILITARY EXCLUDED)



Gonorrhea reported by the military in 1981 increased 57.9 percent (444/700) over 1980. With the military buildup currently underway, VD among the military could become a serious problem during the next few years.

Prior to 1981 only seven cases of Penicillinase Producing Neisseria Gonorrhea (PPNG) had been reported in Alabama. During 1981, 25 cases were reported and epidemiologically pursued. Perhaps the prompt follow-up and treatment of these patients and their contacts have temporarily prevented this resistant strain of gonorrhea from becoming seeded in Alabama.

The Gonorrhea Pelvic Inflammatory Disease Program implemented in 1981 has been an outstanding success. This program involved the treatment and the management of GPID cases diagnosed in hospital emergency rooms and in VD clinics of the local health departments. During the year 668 patients benefitted from this program. Many of them would likely have developed major medical problems such as sterility, ectopic pregnancies and hysterctomies; and some could have died from the various complications.

Syphilis—In 1981 syphilis continued to increase at an alarming rate. There were 612 cases of primary/secondary and 369 early latent cases reported, an increase of 28.9 and 20 percent respectively over 1980. Since 1977 early syphilis has increased 292 percent (336 in 1977 to 981 cases in 1981.) Private and public reporting has increased proportionately.

Private physician reporting has been done primarily through the Reactor Program with 90 percent of the laboratories reporting faithfully in 1981. All reactors were followed according to program guidelines.

Epidemiology has been performed effectively. However cases were not interviewed and contacts were not pursued as rapidly as they have been in the past. The case load and limited staff accounted for this reduction.

Educational efforts were directed primarily to the patient, the student and the general public. Each objective was to prevent future infections by raising VD awareness and teaching patient responsibility. The object of patient education was to reduce reinfections.

The new *Teacher's Curriculum Guide* was well received throughout the state. Over 700 teachers participated in workshops where the methods and usage of the teacher's guide were discussed and explained.

The following graphs and tables give more detailed information on gonorrhea and syphilis.

TABLE 10-14
GONORRHEA SCREENING (FEMALE) SELECTED DATA BY TYPE OF PROVIDER

Type of Facility	Volume	Percent of Total Volume	No. of Positives	Percent of Positives	Percent of Total Positives
Private Physicians	147,600	48.7	2,680	1.8	20.9
Health Department (Non-Venereal Disease Clinics)	92,033	30.4	3,552	3.9	7.7
Private Hospital: Outpatient	21,602	7.1	1,109	5.1	8.7
Private Family Planning Groups	20,428	6.8	453	2.2	3.5
Health Department (Venereal Disease Clinics)	10,837	4.5	4,695	43.3	36.6
Community/Neighborhood Health Centers	3,644	1.2	238	6.5	1.9
Student Health Centers	3,589	1.2	60	1.7	0.5
Correction/Dentention Centers	302	0.1	25	8.3	0.2
Military Dependents	13	*	2	15.4	*
Private Hospital: Inpatient	6	*	1	16.7	*
TOTAL	300,054	100.0	12,815		100.0

*Statistically insignificant.

TABLE 10-15
GONORRHEA—NEW CASES FROM PHYSICIANS AND CLINICS BY PUBLIC HEALTH AREA, COUNTY, AGE, SEX AND RACE

	COUNTY	0 - 14				15 - 19				20 - 24				25 - 34				35 - 54				55 - Over				Not Stated				Total
		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
PHA # 1	Colbert		1			4	22	13	31	8	18	23	37	9	29	16	24	3	6		4									248
	Cullman					7	13			5	18			8	5	1		2												59
	Franklin				2	3	8	3	5	3	11	2	5	1	20	2	2		2											69
	Jackson											2	1	1																4
	Lauderdale		1			9	38	8	33	26	53	26	36	20	26	11	16	1	9		1									314
	Lawrence						4	2	18	2	7	1	9	2	2	3	4	2	2		1									59
	Limestone		1		3	1	13	7	35	3	11	11	31	11	6	12	7	2		4	1									159
	Madison		1	4	6	41	87	160	209	104	105	277	174	110	51	202	96	13	9	34	7	2		3						1,695
	Marion					1	2		3	2	12		2	1	5		3				1									32
	Marshall					2	1	1	3	2	3	2	2	1	2		2		1											22
	Morgan				4	15	36	24	39	28	20	17	21	20	10	8	6	3	2	2		1								256
	Winston					1	4		1	1	12			1	4															24
PHA TOTAL			4	4	15	84	228	218	377	184	270	361	318	185	160	255	160	26	31	40	15	3		3						2,941
PHA # 2	Bibb						2	1	14		1	2	10	1	4	1	3	1												40
	Fayette					2		1	8				11			3	1				1									27
	Greene				2			18	29			13	22			6	15				2									107
	Hale			1	2		1	8	22			5	35		1	6	17			2	4									104
	Lamar						6			1	2				3	1	2			1	1									17
	Pickens				2			5	26	2	1	6	10	1		6	12			2										73
	Tuscaloosa			4	16	14	46	114	199	33	67	215	234	24	42	156	136	11	6	25	12			2						1,356
PHA TOTAL				5	22	16	55	147	298	36	71	241	322	26	50	179	186	12	6	30	20			2						1,724
PHA # 3	Blount						6		1	7	13	2		2	5															36
	Chilton						3		9	1	9		12		2		8													44
	Jefferson		4	7	29	61	184	445	974	164	297	1,072	1,405	188	145	1,011	802	52	22	160	63		1	14						7,100
	St. Clair						4				1	2		4			1			1										13
	Shelby			1	1	1	9	2	19	4	11	5	16	1	8	4	7	2		1	2									94
	Walker					2	12	3	5	6	21	11	10	8	9	6	4	2	1	1										101
PHA TOTAL			4	8	30	64	218	450	1,008	182	352	1,092	1,443	203	169	1,021	822	56	23	163	65		1	14						7,388
PHA # 4	Calhoun		1	4		7	33	44	70	10	25	35	72	11	19	18	35	4	1	4	2									395
	Chambers						3	21	19		1	13	6	9	3	11	5	2		1										94
	Cherokee							1	1				1				1		1											5
	Clay										1		3		1					1										6
	Cleburne						1																							1
	Coosa							1	2			6	5	2		1			1											18
	DeKalb					4	5		1	7	7			9	3	2	1				1									40
	Etowah	2		1	1	6	18	16	29	17	14	28	19	19	12	18	13	4	1	5										223
	Randolph		2			1		7	9	1	2	9	6	2	2	7	3		1	1	2	1								56
	Talladega				4	6	11	16	63	9	17	17	53	11	5	14	27	1	2	2	2									260
	Tallapoosa				1	5	1	2	5	5	1	2	1	4	1	1	4	1												34
PHA TOTAL		2	3	5	6	29	72	108	199	49	63	110	166	67	46	72	89	12	7	14	7	1								1,132
PHA # 5	Autauga	1				2	1	1	8	3		1	8	1		1	4													31
	Barbour				2	1	2	11	57	1	3	16	34	3	5	11	23		1	4	2			1	1					178
	Bullock						1	4	13			2	10				3				1									34
	Butler				1	1	2	5	6	1	1	1	8			2	2		1											31
	Coffee						7	9	16	7	2	5	16	2	3	8	6			1	1									83
	Covington				1	2	1		5	2	2	4	2	2	1	3	3				2									30
	Crenshaw					1	1	10	14			15	13		1	6	14			4	2									81
	Dale				1		3	3	4	1	4	3	3	2	2	2	1													29
	Elmore				1	1	1	1	25		4	12	17		2	1	22	1	1	1	2									92
	Geneva				1				5	1	4		4		2															17
	Henry				1		2		1	1			3	1	2	1	2	2			1									17
	Houston		1	1	8	19	33	60	61	21	38	73	73	12	16	67	41	3	3	18	2	1		3						554
	Lee			2	3	9	13	24	28	23	17	43	41	2	2	12	18			1										238
	Lowndes			3	5		1	45	73			37	52	1	1	25	35			6	13									297
	Macon				1		1	23	30			42	34	1		22	8			2										164
	Montgomery		6	14	30	26	95	325	495	62	87	587	553	49	62	342	259	6	3	30	29			3	2					3,065
	Pike			1	3	1	1	24	26	3	2	24	38	2	1	17	11			2	1									157
	Russell				2	1	3	18	39	15	6	29	61	3	4	23	29	1		3	6									243
PHA TOTAL		1	7	21	60	64	168	563	906	141	170	894	970	81	104	543	481	13	9	72	62	1		7	3					5,341
PHA # 6	Baldwin				1	6	20	17	43	13	15	17	38	2	11	10	19		2	4	1									219
	Choctaw				1	2	1	1	15	2	1	1	10			1	2													37
	Clarke					1	1	2	14			2	13			2	4				1									40
	Conecuh						2	13	20			14	11		1	7	4													72
	Dallas		1	4	20	3	17	177	187	10	8	269	192	7	12	152	98	2	3	17	11			2						1,192
	Escambia		1			4	4	17	26	5	3	9	15	3	3	2	5			3										100
	Marengo				4	1	1		26	1		1	40	1	1	1	21				3				2					103
	Mobile	1		8	29	29	126	383	560	88	128	716	620	110	55	587	317	26	14	97	21	2	3	9	1					3,930
	Monroe				1		1	4	8		2	1	8				3													28
	Perry		1					3	9			3	10				5													31
	Sumter				1				11	1		1	13	1																28
	Washington						1		5		2		1			1	2													12
	Wilcox				3			22	37	2		10	32		2	13	27				10			1	1					160
PHA TOTAL		1	3	12	60	46	174	639	961	122	159	1,044	1,003	124	85	776	507	28	19	121	47	2	3	12	4					5,952
STATE TOTAL		4	21	55	193	303	915	2,125	3,749	714	1,090	3,742	4,222	686	614	2,846	2,245	147	95	440	216	7	4	38	7					24,478

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TABLE 10-16
SYPHILIS—NEW CASES FROM PHYSICIANS AND CLINICS BY PUBLIC HEALTH AREA, COUNTY, AGE, SEX AND RACE

	COUNTY	0 - 14				15 - 19				20 - 24				25 - 34				35 - 54				55 - Over				Not Stated				Total
		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
PHA # 1	Colbert					1	1																							2
	Cullman						1																							1
	Franklin																													
	Jackson																													
	Lauderdale									1																				1
	Lawrence															1														1
	Limestone																													
	Madison								1	2						1														4
	Marion																													
	Marshall																													
	Morgan																													
	Winston																													
PHA TOTAL						1	2		1	3						2														9
PHA # 2	Bibb																													
	Fayette																													
	Greene																													
	Hale																													
	Lamar															1														1
	Pickens							2				1				2					1									6
	Tuscaloosa							1	2			4		2		2	1			2										14
PHA TOTAL								3	2			5		2		5	1			2	1									21
PHA # 3	Blount																													
	Chilton						1			1																				2
	Jefferson					1	1	5	6	5		29	13	3		40	7	7		14	2	1		1	1					136
	St. Clair																	1	1											
	Shelby																													2
	Walker					1					1																			2
PHA TOTAL						2	2	5	6	6	1	29	13	3		40	7	8	1	14	2	1		1	1					142
PHA # 4	Calhoun	1		4	3																									8
	Chambers																													
	Cherokee																													
	Clay																													
	Cleburne															2		1												3
	Coosa																													
	DeKalb																													
	Etowah														1															1
	Randolph																													
	Talladega							1	2			2	1	1		6	1				2									16
	Tallapoosa																													
PHA TOTAL		1		4	3			1	2			2	1	1	1	8	1	1			2									28
PHA # 5	Autauga					1			1							1														3
	Barbour																													1
	Bullock																													
	Butler																													
	Coffee																													
	Covington																		1	1										2
	Crenshaw											1																		1
	Dale											2																		2
	Elmore															2														2
	Geneva																1													1
	Henry																													
	Houston							3	2			7	3			9	2			1	2									29
	Lee									1						2	1													4
	Lowndes																													
	Macon												3			1														4
	Montgomery			1	3	1		14	21	2		29	7	3		45	19			6	2	1	1	1						156
	Pike							1																						1
	Russell							1								2			1											4
PHA TOTAL		1		1	3	2		19	24	3		39	13	3		62	23		2	8	4	1	1	1						210
PHA # 6	Baldwin				2			3	1			1				2														9
	Choctaw																													
	Clarke																													
	Conecuh															1														1
	Dallas							4	1			4				3	1													13
	Escambia																													
	Marengo																													
	Mobile				1	1		12	17	4		38	21	3	1	40	19	3		7	4	1		1						173
	Monroe											1				1														2
	Perry																													
	Sumter																													
	Washington								1																					1
	Wilcox											1	1			1														3
PHA TOTAL					3	1		19	20	4		45	22	3	1	48	20	3		7	4	1		1						202
STATE TOTAL		2		5	9	6	4	47	55	16	1	120	49	12	2	165	52	12	3	31	13	3	1	3	1					612

TABLE 10-17
REPORTED SYPHILIS TRENDS
(EXCLUDES MILITARY)
1967-1981

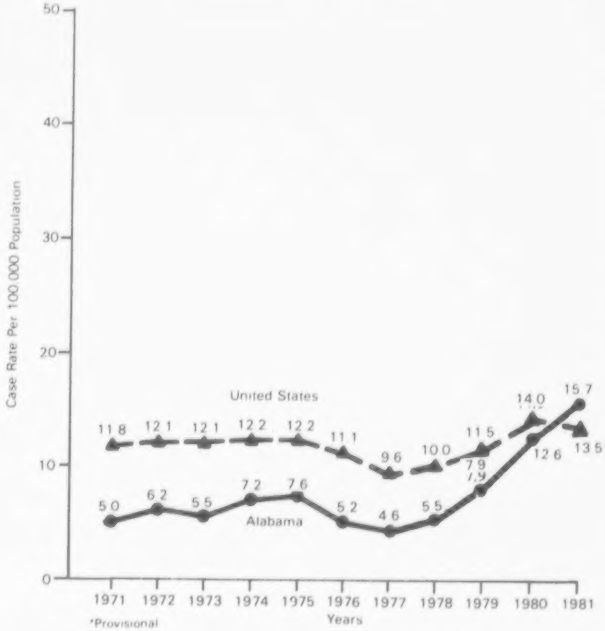
Year	Primary and Secondary	Rate Per 100,000	Percent Change	Total Syphilis	Rate Per 100,000	Percent Change
1967	882	25.2	-28.5%	1,270	36.2	-25.3%
1968	541	15.4	-38.7%	837	23.7	-34.1%
1969	226	6.4	-58.2%	519	14.8	-38.0%
1970	151	4.3	-33.2%	368	10.6	-29.1%
1971	175	5.0	+15.9%	433	12.5	+17.7%
1972	216	6.2	+23.0%	391	11.3	- 9.7%
1973	194	5.5	-10.2%	426	12.2	+ 9.0%
1974	254	7.2	+30.9%	499	14.2	+17.1%
1975	270	7.6	+ 6.3%	527	14.9	+ 5.6%
1976	188	5.2	-30.4%	417	11.7	-20.9%
1977	164	4.5	-12.8%	336	9.4	-24.1%
1978	199	5.5	+21.3%	415	11.6	+23.5%
1979	301	7.9	+51.3%	571	15.1	+37.6%
1980	478	12.6	+58.8%	885	23.4	+54.9%
1981	612	15.7	+28.5%	1,054	27.0	+19.1%

TABLE 10-18
COMPARATIVE PRIMARY AND SECONDARY SYPHILIS RATES FOR ALABAMA AND UNITED STATES
(EXCLUDES MILITARY)
1967-1981

	Number of Cases		Rate Per 100,000	
Year	Alabama	United States	Alabama	United States
1967	882	21,053	25.2	10.8
1968	541	19,019	15.4	9.6
1969	226	19,438	6.4	9.7
1970	151	21,770	4.3	10.8
1971	175	23,868	5.0	11.8
1972	216	24,932	6.2	12.1
1973	194	25,079	5.5	12.1
1974	254	25,400	7.2	12.2
1975	270	25,713	7.6	12.2
1976	188	23,634	5.2	11.1
1977	164	20,399	4.5	9.6
1978	199	21,656	5.5	10.0
1979	301	25,103	7.9	11.5
1980	478	27,516	12.6	14.0
1981	612	30,610	15.7	*13.5

*Provisional.
Rate per 100,000 population.

GRAPH 10-15
PRIMARY AND SECONDARY SYPHILIS CASE RATES FOR ALABAMA AND UNITED STATES
CALENDAR 1971-1981



*Provisional

TABLE 10-19
VENEREAL DISEASE MORBIDITY (MILITARY EXCLUDED) BY COUNTY

	Primary & Secondary Syphilis				Total Syphilis		Gonorrhea			
	1980		1981		1980	1981	1980		1981	
	Cases	Rate	Cases	Rate	Cases	Cases	Cases	Rate	Cases	Rate
Autauga	9	27.7	3	9.2	14	8	55	185.8	31	95.5
Baldwin	4	5.1	9	11.4	7	16	174	228.9	219	277.5
Barbour	4	16.1	1	4.0	7	2	136	537.5	178	717.4
Bibb							30	201.3	40	253.6
Blount							18	52.5	36	98.1
Bullock						2	105	905.2	34	321.8
Butler	3	13.8			7	1	46	211.9	31	143.0
Calhoun	15	12.8	8	6.8	29	15	341	287.0	395	336.8
Chambers	2	5.1			7	2	129	341.3	94	239.4
Cherokee					1		7	37.8	5	26.5
Chilton	2	6.5	2	6.5	3	7	62	206.7	44	143.1
Choctaw	1	5.9			1		51	309.1	37	219.7
Clarke	1	3.6			2		21	75.3	40	144.3
Clay							6	43.7	6	43.7
Cleburne			3	23.7		6	1	7.9	1	7.9
Coffee					1	2	128	356.5	83	214.5
Colbert			2	3.7		3	198	395.2	248	453.9
Conecuh	1	6.3	1	6.3	3	3	72	453.1	72	453.1
Coosa							10	86.9	18	158.0
Covington	1	2.7	2	5.4	4	4	880	225.4	30	81.3
Crenshaw	3	21.2	1	7.1	4	2	87	604.2	81	573.1
Cullman			1	1.6		1	55	89.9	59	95.4
Dale	3	6.3	2	4.2	9	2	40	82.9	29	60.8
Dallas	2	3.7	13	24.1	5	25	1,380	2,546.2	1,192	2,209.5
DeKalb							28	54.2	40	74.1
Elmore	7	16.0	2	4.6	10	4	94	223.3	92	210.9
Escambia	10	2.6			12		73	203.9	100	259.9
Etowah	1	0.9	1	0.9	7	2	160	160.5	223	215.9
Fayette							24	142.0	27	143.1
Franklin					2	1	51	186.8	69	242.4
Geneva			1	4.1	2	1	22	89.4	17	69.9
Greene					2		119	1,144.2	107	970.1
Hale	1	6.4			2		107	699.3	104	666.8
Henry	2	13.0			2	2	13	82.3	17	110.7
Houston	7	9.3	29	38.6	18	46	553	736.5	554	737.8
Jackson					4		14	27.4	4	7.7
Jefferson	47	7.0	136	20.2	95	207	6,956	1,035.3	7,100	1,056.7
Lamar			1	6.1		2	7	44.3	17	103.0
Lauderdale			1	1.2	3	2	234	300.0	314	388.6
Lawrence	1	3.3	1	3.3	2	1	40	132.9	59	195.1
Lee	8	10.4	4	5.2	19	9	235	306.6	238	310.5
Limestone	1	2.2			2		140	316.7	159	344.8
Lowndes	1	7.5			4	2	398	2,863.3	297	2,239.5
Macon	3	11.2	4	14.9	8	9	213	797.8	164	610.1
Madison	4	2.0	4	2.0	11	8	1,047	555.4	1,695	859.4
Marengo					1	1	38	161.0	103	410.7
Marion						1	32	106.0	32	106.0
Marshall	2	3.0			3	3	26	41.6	22	33.4
Mobile	206	56.4	173	47.3	314	274	3,349	911.3	3,930	1,075.1
Monroe	2	8.8	2	8.8	2	3	30	129.9	28	123.4
Montgomery	59	29.8	156	78.9	120	255	3,776	1,977.0	3,066	1,549.8
Morgan	4	4.4			10	2	255	281.6	256	282.7
Perry						2	4	29.4	31	206.6
Pickens	4	18.6	6	27.9	8	14	69	310.8	73	339.4
Pike	7	24.9	1	3.6	21	8	150	551.5	157	558.2
Randolph	1	4.9			1	1	27	142.1	56	278.3
Russell	11	23.2	4	8.4	29	19	266	570.8	243	512.6
St. Clair					1		14	37.1	54	140.2
Shelby			2	2.9		2	90	147.3	13	31.3
Sumter							146	884.8	28	165.6
Talladega	28	37.8	16	21.6	41	28	191	274.0	260	351.2
Tallapoosa	1	2.6			2	1	28	76.9	34	87.6
Tuscaloosa	6	4.3	14	10.1	26	32	1,493	1,172.8	1,356	982.5
Walker			2	2.8	1	3	107	158.9	101	146.4
Washington	3	17.8	1	5.9	4	1	8	43.7	12	71.3
Wilcox			3	20.0		7	150	1,041.7	160	1,087.3
Winston							11	54.2	24	106.7
TOTAL	478	12.3	612	15.7	893	1,054	24,020	634.4	24,478	627.6

Rate Per 100,000 Population.

TABLE 10-20
VENEREAL DISEASE MORBIDITY REPORT
(MILITARY EXCLUDED)
CASES REPORTED FOR THE FIRST TIME

Source of Report	Color and Sex		Syphilis					Gonorrhea	Chancroid	Granuloma Inguinale	Lympho-Granuloma Venereum
			Primary and Secondary	Early Latent	Late and Late Latent	Congenital	Not Stated				
Private Physicians	White	Male 111	27	13	1	1		319			
		Female 112	4	5	3			1243			
	All Other	Male 121	78	39	9	1		839	1		1
		Female 122	55	25	22			3380			
		Total, 1XX	164	82	35	2		5781	1		1
Public Clinics	White	Male 211	24	17	2			1425			
		Female 212	6	8	1			1500			
	All Other	Male 221	293	146	18			8478			
		Female 222	125	116	15			7294			
		Total, 2XX	448	287	36			18697			
All Sources (Above)		Total, 3XX	612	369	71	2		24478	1		1

Age of Congenital Syphilis Cases: Less than 1 ____2____
1-4 ________
5-9 ________
over 9 ________
Unknown ________

TABLE 10-21
RESULTS OF FOLLOW-UP OF SEROLOGIC REACTORS

Type of Laboratory	Type of Closure	Line Number	Total Closed	Disposition of Reactive Reports				
				Diagnosis				All Other Dispositions 5
				Primary or Secondary Syphilis 1	Early Latent Syphilis 2	Other Syphilis 3	Not Infected 4	
Private	Administrative	10	10,717					
	Record Search	11	1,295					
	Voluntary Report	12						
	After Contact With Physician	13	1,513	44	36	27	648	758
	Field Investigation of Patient	14	673	43	33	15	269	313
Public	Administrative	20	5,747					
	Record Search	21	2,205					
	Voluntary Report	22						
	After Contact With Physician	23	315	5	4	1	197	108
	Field Investigation of Patient	24	882	62	63	37	459	261
Federal	Administrative	30	232					
	Record Search	31	92					
	Voluntary Report	32						
	After Contact With Physician	33	90			2	37	51
	Field Investigation of Patient	34	46	2		1	11	32

Administrative Closures

Kinds of Reactors	Number
Weakly Reactive	4,895
Over age 40	9,431
Clinic	1,347
No Name	1,010
Total	16,683

Number of Reactive Specimens Reported During Report Period

Private Labs	14,607
Public Labs	9,467
Federal Labs	518
TOTAL	24,592

REMARKS:

Laboratory Statistics

Report Period Jan. 1, 1981 - Dec. 31, 1981

Project Number 04 H000136-04-2

Date Prepared

State or City Alabama

BUREAU OF PUBLIC HEALTH NURSING

BUREAU OF PUBLIC HEALTH NURSING

Division of Home Health Services

The Omnibus Reconciliation Act of 1980, passed in the latter days of 1980, brought changes to the Medicare home health program which were implemented during fiscal year 1981. In some aspects the program was expanded, but in others even greater restrictions were placed on providers.

Two of the primary changes affecting Medicare programs were the elimination of the hospitalization requirement for beneficiaries to be eligible for Part A home health benefits and the elimination of the 100 visit restriction per benefit period for Part A patients and per calendar year for Part B patients. The elimination of the 100 visit restriction allowed some patients to be served for longer periods of time, but the patients had to meet the eligibility requirements of being under the care of a physician, homebound and in need of a skilled service.

The Medicaid home care program continued to impose strict guidelines during fiscal year 1981 with a resulting decrease in patients served. Since the subunits followed the guidelines of the Disease and Disability program more closely, the number of patients admitted to this program decreased significantly. Additional decrease resulted from two county health departments phasing down their participation in all parts of the home care program.

Overall the number of patients and visits declined. Looking at each program individually, Medicare patients and visits increased; Medicaid patients and visits decreased slightly; and Disease and Disability patients and visits declined sharply. Graphs 11-1 through 11-8 illustrate the changes that have occurred in the last five years. Closer screening by the subunits has ensured that patients were admitted to the proper programs.

Since 1977 the number of visits per patient has increased in the overall program each year: 10.4 in 1977, 12.9 in 1978, 16.8 in 1979, 15.1 in 1980 and 19.1 in 1981. In the Medicare program the visits per patient have remained fairly stable: 18.6 in 1977, 18.5 in 1978, 21.8 in 1979, 18.1 in 1980 and 18.1 in 1981. In the Medicaid program the visits per patient have fluctuated but have increased in this five year period: 11.7 in 1977, 17.6 in 1978, 28.2 in 1979, 25.9 in 1980 and 27.5 in 1981. The Disease and Disability program visits per patient have shown a decided increase: 5.5 in 1977, 7.5 in 1978, 8.9 in 1979, 7.7 in 1980 and 16.1 in 1981. This increase can be attributed to only bona fide home health patients being admitted to the Disease and Disability program and to staff being available in the local subunits to provide the required services.

In the Medicare program the fiscal intermediary has placed tighter controls on the use of home health aides whereas the Medicaid program allows more utilization of aides if personal care services will maintain the patient in the home environment.

Chart 11-1 indicates the disciplines of service provided by subunits. Skilled nursing and home health aide services were available in all 58 subunits. Physical therapy was provided in 33 subunits (37 counties); speech therapy in 10 subunits (10 counties); and occupational therapy in 2 subunits (2 counties). Physical, speech and occupational therapy continued to become available in additional counties; and contracts have been negotiated with individuals or other agencies for these services. These speciality services are primarily utilized in the Medicare program because the other programs have no means of paying for services other than nursing and home health aide.

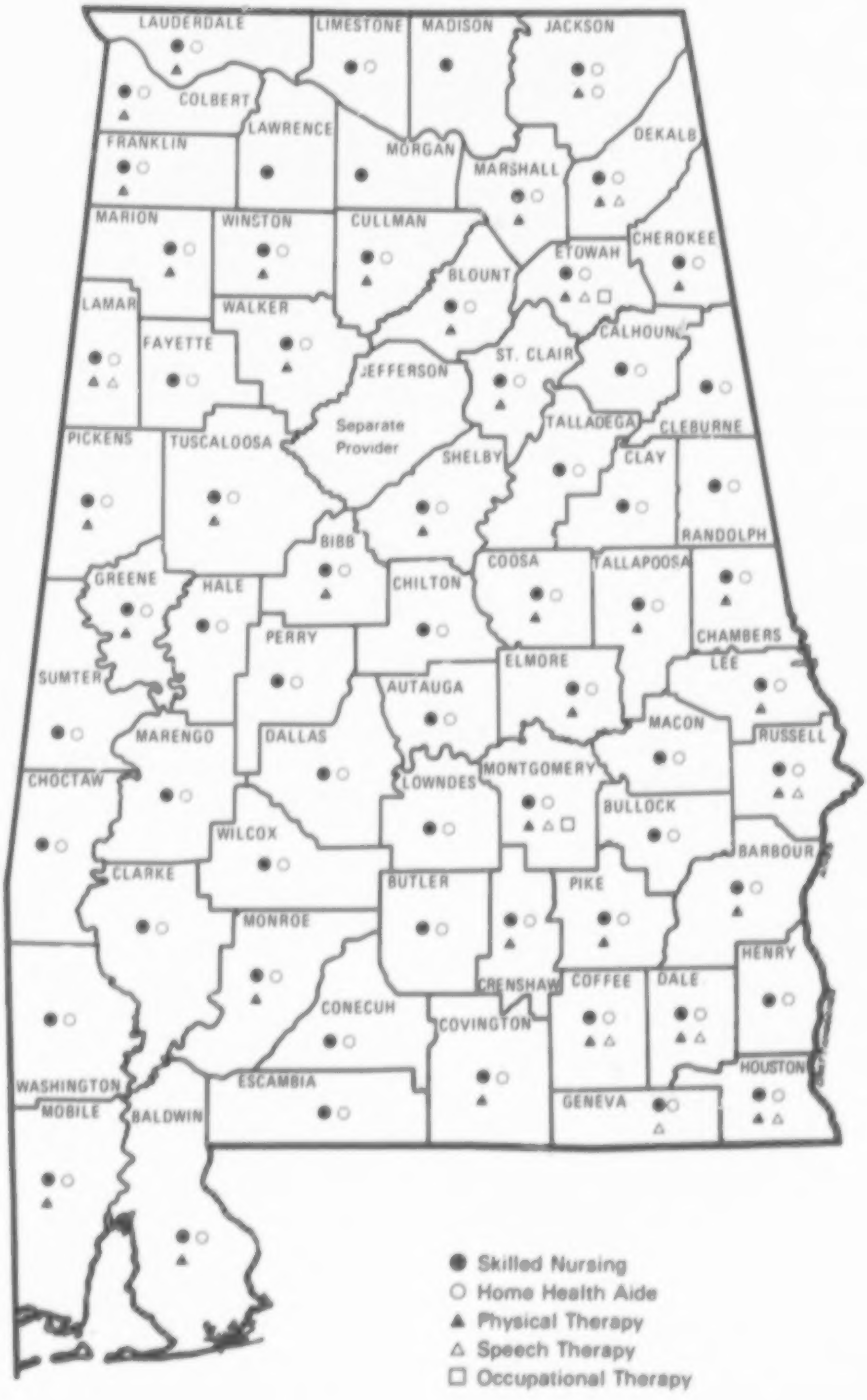
The pilot project (Memorandum of Understanding Agreement) instituted last year between the Office of Direct Reimbursement (ODR) of Health Care Financing Administration and the Division of Home Health Services was renegotiated this year. The ODR reimburses for services with no medical review by the ODR staff, but every six months consultants from Baltimore and Atlanta comprehensively review random samples of patient and administrative records to determine compliance with program guidelines and coverage issues.

This project and the magnetic tape-to-tape billing program which was implemented a few years ago continued to get reimbursements to the subunits on a more timely basis. Prior to the computerized program being implemented, as much as $325,000 was tied up monthly in the Baltimore office for medical review, error billing or consistency edits. Now the monthly amount not paid by ODR ranges from $17,000 to $18,000, and the majority of this amount is paid within a thirty-day period. This means that subunits are now receiving over 95 percent of the reimbursement on a timely basis. In addition to the computerized billing program, the notice of start of care computer program is well established. This portion of the program allows the division to receive timely approval of admissions usually in two to four weeks instead of two to three months. In turn initial bills may be submitted more quickly, and subunits receive payment for services rendered on a more timely basis.

Marshall and Jackson counties had grants to enrich their existing home care programs. The grants will expire at the end of the first month of fiscal year 1982. Statistics indicate both counties will have met their objectives, and their programs will have substantially increased both in unduplicated patients served and visits made.

A sliding fee scale for services was in place in eight counties during this year. In the coming year emphasis will be placed on more subunits implementing the program to help offset the county costs of providing services in the Disease and Disability program. When fee for service is put into effect, indigent patients will continue to receive

CHART 11-1
HOME HEALTH SERVICES AVAILABLE HOME HEALTH AGENCY SUBUNITS COUNTY HEALTH DEPARTMENTS FISCAL YEARS 1977-1981


LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
MORGAN
DEKALB
FRANKLIN
MARSHALL
MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
BLOUNT
LAMAR
WALKER
CALHOUN
FAYETTE
ST. CLAIR
JEFFERSON
Separate Provider
TALLADEGA
CLEBURNE
PICKENS
TUSCALOOSA
SHELBY
CLAY
RANDOLPH
BIBB
GREENE
HALE
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
PERRY
ELMORE
LEE
SUMTER
AUTAUGA
MARENGO
DALLAS
MACON
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
PIKE
MONROE
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
HOUSTON
WASHINGTON
ESCAMBIA
GENEVA
MOBILE
BALDWIN
● Skilled Nursing
○ Home Health Aide
▲ Physical Therapy
△ Speech Therapy
☐ Occupational Therapy

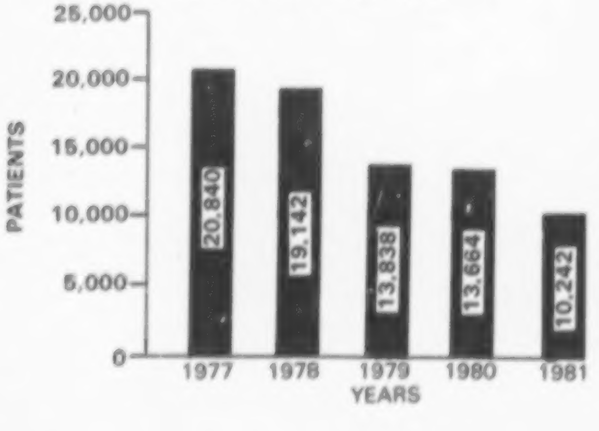
services at no charge; and the charges of other patients will be based on their ability to pay in keeping with guidelines of the Division of Home Health Services. In establishing these service fees, the poverty guidelines of the federal government were used.

The division has assisted subunits in improving the quality of the professional advisory council of each. Efforts have been made to have these councils participate more actively in the home care program of their county. Council members have been asked to participate in the annual agency evaluation and in the clinical and administrative record review as well as to make recommendations for overall agency improvement. A major stumbling block encountered in many of the small subunits has been inadequate local physician participation in the council. Gaining physician and other health professional participation in the advisory councils will continue to be a priority for the coming year.

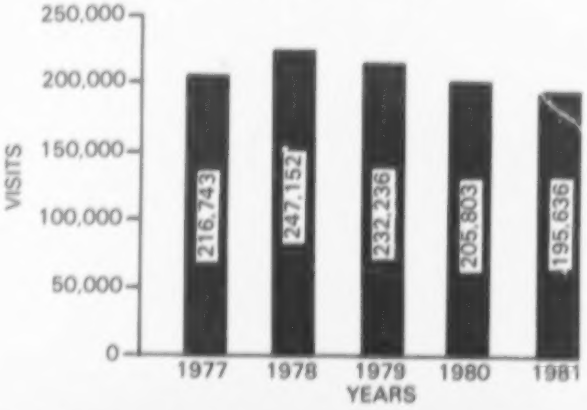
The cost accounting program implemented this year by the Division of Finance for the entire health department has made available on a county basis an excellent management tool based on services rendered, activity time and cost for monitoring the home health program. These reports have demonstrated some wide variations in cost by county subunits, and efforts are being made to find and correct the causative factors. The cost accounting reports for home health will continue to be used as needed so that the program can become more cost effective and efficient.

Applications for Certificate of Need (CON) approval for home health agencies have increased. Division staff have attended public hearings, Health System Agency reviews, and State Health Planning and Development reviews of six agencies which filed applications to become home health agencies or to expand service areas. As appropriate the division staff have supported no new agencies being approved to provide service. However a number of existing private agencies have expanded their service areas in addition to other agencies being grandfathered into the program under the CON proprietary agency provision. Division personnel have actively participated in the Alabama Association of Home Health Agencies and support the association's stand of two agencies in each county and of existing agencies being fully utilized before new agencies are granted CON to come into a designated area.

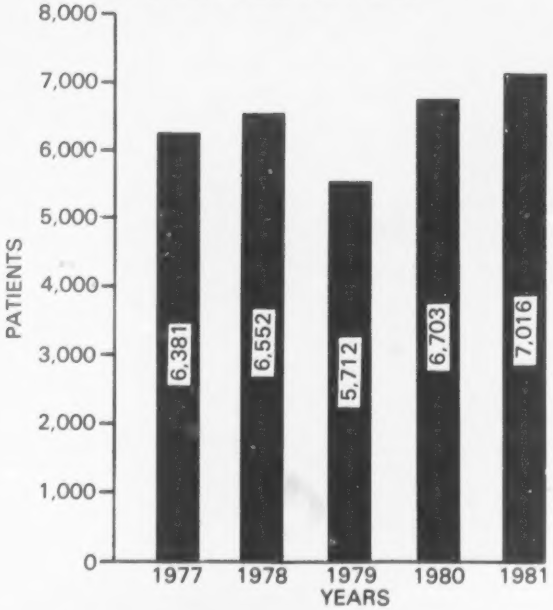
GRAPH 11-1
PATIENTS
MEDICARE, MEDICAID, AND DISEASE
AND DISABILITY PROGRAMS
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981

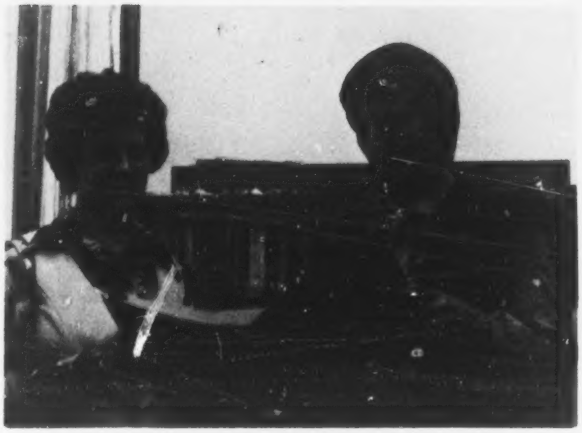


GRAPH 11-2
VISITS
MEDICARE, MEDICAID, AND DISEASE
AND DISABILITY PROGRAMS
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981

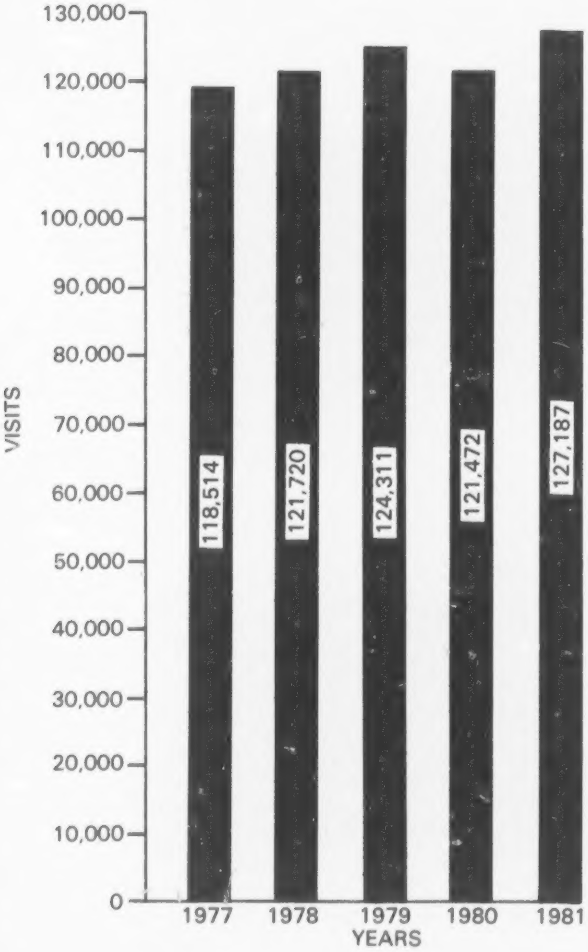


GRAPH 11-3
PATIENTS
MEDICARE PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981

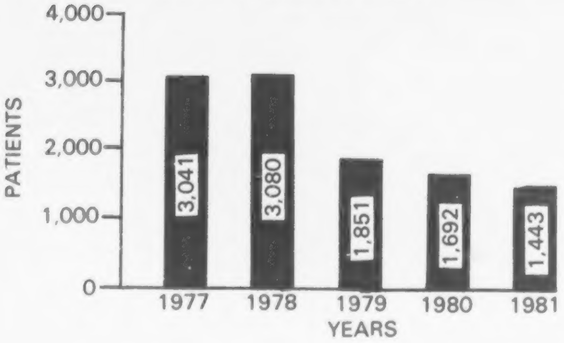




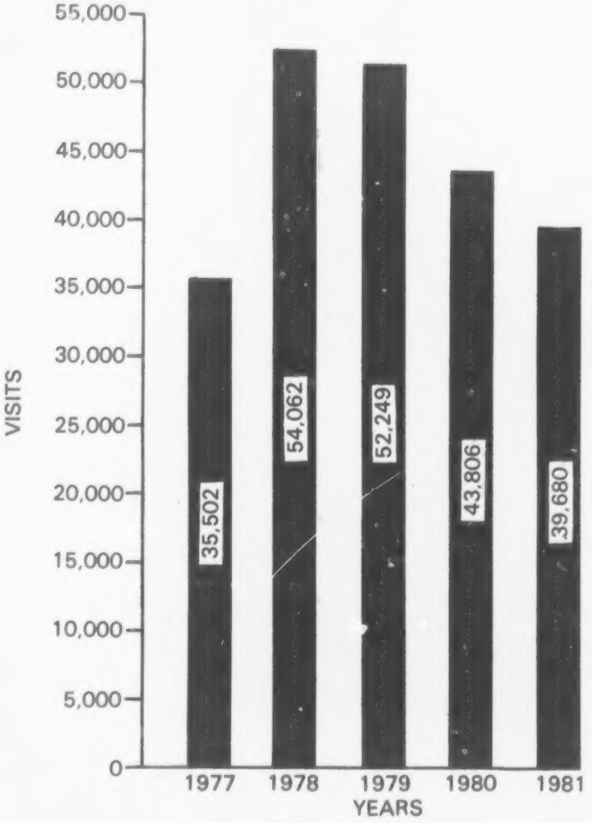
GRAPH 11-4
VISITS
MEDICARE PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981



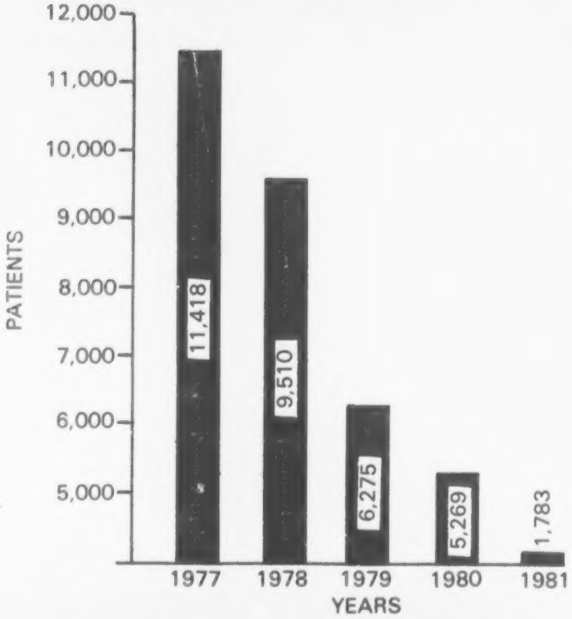
GRAPH 11-5
PATIENTS
MEDICAID PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981



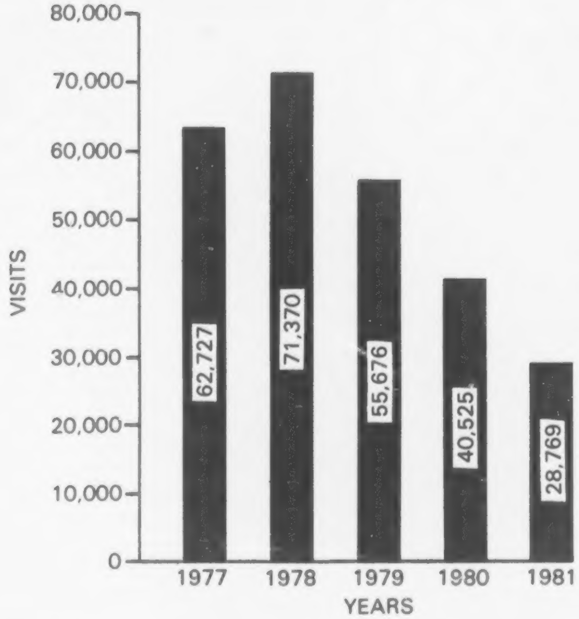
GRAPH 11-6
VISITS
MEDICAID PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981



GRAPH 11-7
PATIENTS
DISEASE AND DISABILITY PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981



GRAPH 11-8
VISITS
DISEASE AND DISABILITY PROGRAM
HOME HEALTH AGENCY SUBUNITS
COUNTY HEALTH DEPARTMENTS
FISCAL YEARS 1977-1981



Division of Planning, Training and Evaluation

During 1981 the Division of Planning, Training and Evaluation continued to meet the educational needs of public health nurses by providing quality educational programs. The topics for these programs were decided by a needs assessment. The evaluation was determined by changed behavior of public health nurses through observation and reports by public health nursing consultants and nursing directors and supervisors. The overall objective was to assist public health nurses in acquiring knowledge and perfecting skills and thus improve the quality of nursing services being rendered to the people of Alabama.

Three staff development programs were conducted at 12 sites during the year. "Nursing Process" and "Updating of Genetics" were the topics of the first one-day program which was held at the various locations between January 6 and February 24. There were 267 nurses who attended this session. The topics of the second session held between April 7 and May 26 were "Nursing Diagnosis as Used by Public Health Nurses" and "Current Information on Hypothyroidism and Phenylketonuria." The second session attracted 272 nurses. "Familiarization with the New Coding System" was discussed during the morning of the third session which was held between October 13 and November 20. The afternoon portion was devoted to "Current Information Regarding Sudden Infant Death Syndrome and the Tracking System of the Project," under the auspices of the Bureau of Maternal and Child Health/Family Planning. A total of 280 nurses attended this third session.

Two workshops for human service aides were conducted in six geographical areas of the state. The first session held between March 4 and April 22 was attended by 129 aides. The subject was "Care of the Patient Receiving Oxygen Therapy in the Home." The second session held between October 1 and November 13 had 120 aides in attendance. "Self-Breast Examination" and "Dealing with Patients Who Have Cancer" were discussed during this session.

Workshops on "Self-Breast Examination" were conducted in 11 counties between May 5 and September 18 by the staff development coordinator. A total of 68 nurses, aides and clerical personnel attended. Public health personnel as well as patients have benefitted from this program.

Two tuberculosis orientation programs were conducted, one in Montgomery on June 30 and another in Troy on November 30 for 26 participants. More programs are planned for 1982.

The Home Health Service Coordinators' Workshop was held in Clanton, June 22 and 23, with 62 home health nursing coordinators in attendance. Mrs. Flora Ryner, nursing consultant, Office of Direct Reimbursement, Health Care Financing Administration, was the guest faculty. She reviewed and discussed coverage determination for home health services. Pertinent topics included defining the responsibilities of the home health service coordinator, the functions of the subunit advisory council, marketing techniques, discharge planning and billing. Due to budgetary constraints this workshop was condensed to two days.

The Public Health Nursing Supervisors' Workshop was held in Clanton, December 7 through 9. The topic for the workshop was "The Supervisor as a Nurse Manager." Sixth-five nursing supervisors throughout the state attended. The focus of the meeting was on providing the supervisor with managerial skills, emphasizing basic principles of supervision. Interviewing techniques, motivational skills, communication for change and avoiding the high cost of employee turnover were among the topics presented.

Workshops which the division cosponsored or promoted were:

1. Adolescent Client Workshop (February 19-20 in Montgomery) sponsored by the University of Kentucky and the Bureau of Maternal and Child Health/Family Planning.
2. Home Care of the Spinal Cord Injured Patient (March 24-25 in Birmingham) sponsored by Spain Rehabilitation Center.
3. Birth Defects Prevention Plan: Concept 80-81 (April 30 in Mobile) sponsored by Genetics Birth Defects Center, University of South Alabama.
4. Child Health Assessment Workshop (September 1-2 in Mobile) sponsored by University of South Alabama.
5. Perspectives on Death and Ministering to the Dying and Bereaved (September 15-16 in Enterprise) sponsored by Enterprise State Junior College.

The Birth Defects Center of the University of South Alabama organized and developed five regional task force groups in Public Health Area VI in cooperation with the personnel of the Bureau of Public Health Nursing and public health nurses at the county level. These task force groups have been instrumental in developing genetic clinic services for patients in the Dothan area.

Four public health nursing orientation programs were presented on January 26-30, March 9-13, July 6-10 and September 28-October 2, with a total of 57 nurses attending. Basic principles of public health nursing were presented. Program directors enlightened the participants regarding their particular programs and services during these orientation programs.

Approximately 60 nursing reference books were added to the reference library housed in the Bureau of Public Health Nursing. The film, entitled "Productivity and the Self-Fulfilling Prophecy: The Pygmalion Effect," was purchased to be used as a management tool for public health nursing.

Members of this division have participated in workshops and seminars as guest speakers and resource people.

The division has continued to provide educational and orientational experiences for all public health nurses. Plans for the coming year will emphasize the preceptor program in the orientation of new public health nursing personnel. The need for research in public health nursing has been demonstrated, and plans are being made to determine areas of research which would be most beneficial to public health nurses and the patients whom they serve.

Support Division

The Bureau of Public Health Nursing continued to assist the county health departments in planning, implementing and evaluating program goals and objectives. During six months of the year there were four generalized consultants; and after one retired, there were only three. In spite of the small staff, the consultants made approximately 500 visits to county health departments to offer assistance in all nursing programs and with problems including staffing, budgeting, program evaluation, orientation of new staff, details of carrying out specific programs, record keeping and supervisory activities.

In an effort to provide nursing consultation to all counties on a regular, planned basis, funds were appropriated for one additional consultant and for sharing a consultant in three of the public health areas. In Public Health Area I the consultant will spend half of her time as nursing director in the Tri-County District and half as area nursing consultant. In Public Health Area II the same arrangement has been made. A similar arrangement will be implemented in Public Health Area III in January. All the consultants are working closely with the assistant state health officers. This plan seems not only to improve communications but to provide more direction of activities at the local level.

The bureau continued to work closely with all other units in order to coordinate activities, but special emphasis this year has been given to the Maternal and Child Health Program at the local level to utilize staff better and to expand services. Efforts are being made to coordinate the general nursing programs and the MCH programs so that not only clinical services but also the appropriate home visits can be provided.

Members of the bureau staff were active in interpreting the revised activity report to local nursing staffs and also assisted with the cost accounting seminars which were conducted throughout the state.

The Support Division was responsible for contractual agreements with Medicaid for home health services and for letters of agreement and contracts for student nurse experiences. Assistance was also provided counties in preparing grant proposals for expansion of home health services.

Since efforts were being made to improve the proposed pay and classification plan, the staff worked closely with the nurses throughout the state and with Health Personnel to provide a nursing series that is workable and acceptable and that will provide a pay incentive more competitive with the private sector.

In 1981, 425 nurses were employed under the State Merit System. Fifty-one were employed at the state level and 374 at the county and district levels. The percentage of nurses with baccalaureate or higher degrees is 16.7 percent. This is a low percentage, but it represents more than a 5 percent increase. The nurse who has a baccalaureate degree in nursing has had theory and some practice in public health nursing included in her education. Nursing personnel changes follow.

Employment
50 replacements, full-time
25 new positions, full-time
2 replacements, temporary
1 new position, temporary
2 replacements, part-time
1 new position, part-time

Changes in Classification
35 promotions
1 voluntary demotion

Separations
79 resignations
8 retirements
4 lay offs

In addition to the public health nurses employed under the State Merit System, 95 (2 part-time) public health nurses were employed by Jefferson County; and 27 were employed by Mobile County.

The bureau continued to provide assistance to the baccalaureate nursing programs for student learning experiences. A number of individual preceptorships have also been arranged. The bureau's activities in the student programs represent some of its best recruiting efforts.

As health programs and services expand and become more complex, the need for well-prepared, responsible nurses becomes more urgent. It is a challenge which must be met.

SPECIAL SERVICES ADMINISTRATION

SPECIAL SERVICES ADMINISTRATION

Special Services Administration is composed of three bureaus providing a variety of services both externally to the general public and internally to other units of the Health Department.

The Bureau of Health Data Systems devoted itself to serving the needs of data processing users within the department by upgrading computer applications and by attempting to keep data entry services current.

The promotion of public health was the major emphasis of the Bureau of Primary Prevention. Special programs were conducted in child passenger safety and health education-risk reduction, along with general public information and the production of publications.

The Bureau of Vital Statistics modernized its micrographics equipment as a step toward providing faster and better service to the thousands of Alabamians requiring certified copies of vital records. This bureau is responsible for carrying on the statewide system of registration, preparation, collection, analysis and presentation of data on births, adoptions, legitimations, deaths, marriages and divorces occurring in Alabama. The director of Special Services Administration continued the dual administrative role of state registrar and director of the Bureau of Vital Statistics.

BUREAU OF HEALTH DATA SYSTEMS

Much of 1981 was spent making changes and enhancements to existing computer applications, especially in the systems and programming division. Most of these changes occurred because of changing federal and state requirements. Some areas receiving program enhancements were home health billing, family planning, Division of Finance, Environmental Health dairy inspection, WIC and cost accounting. A major revision of tuberculosis computer programs was begun during the year with the completion scheduled for 1982. Two video terminals were installed to give the programmers direct access to the computer for programming and testing.

Data Entry Division continued to be deluged with work to be converted into machine readable data. During the year over 8 million records of information were converted by data entry. To convert these data more than 375 million keystrokes by the data entry operators were required. A large portion of this work can be attributed to the WIC program.

The Computer Operations Division worked hard during the year to improve production efficiency and to hold down job cost. Jobs were run on late night shifts to get cheaper computer rates; reports were scrutinized with the users to eliminate unused reports; and many other efforts were made to make certain that users are getting a useful product at the most economical cost.

The coming year will see these efforts continue as the bureau serves the data processing users within the Department of Public Health.

BUREAU OF PRIMARY PREVENTION

The Bureau of Primary Prevention in 1981 continued its commitment to the promotion of public health by functioning as the focal point for health education, public information and publications in the department. By providing current information, the bureau assists Alabamians in making positive decisions on matters that are important to total well-being.

Health education activities were stepped up on the state level during the year as the Health Education-Risk Reduction Program with activities at two local intervention projects increased. A Child Passenger Safety Program grant from the Office of Highway and Traffic Safety was continued and consumer product safety activities were increased.

Informational efforts stressed the production of health materials ranging from pamphlets to books, manuals and regulations.

The Division of Graphic Communication supplied the department with professional illustrative, photographic and phototypesetting services.

The bureau distinguished itself with a slide presentation which accompanied State Health Officer Dr. Ira L. Myers' speech to the Alabama Public Health Association and the Medical Association of the State of Alabama. The presentation, which was also made to Health Department employees in Montgomery, was given upon invitation to the Southern Health Association at its annual meeting in Norfolk, Virginia.

Division of Graphic Communication

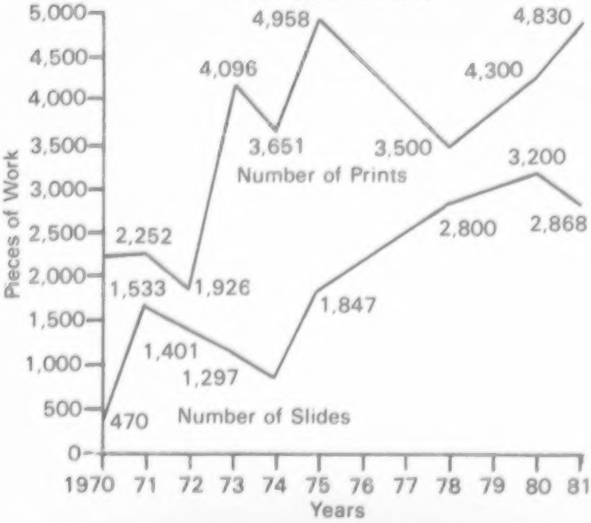
The Division of Graphic Communication promotes health by providing the services of printing coordination, typesetting, illustrative arts and photography to the Department of Public Health.

The division director serves as liaison for the department with printing services. During 1981 the division coordinated $328,040 of printing services consisting of forms, pamphlets and other publications totaling approximately 24 million impressions. To eliminate duplication of effort, offset plates and negatives are filed for future use.

Professional quality printing is made possible by the division's phototypesetting services. During 1981 the typesetting section produced the following: 326 forms, 295 letters for printing, 289 certificates, 210 slides, 122 graphs, 96 calling cards, 90 name placards, 84 charts, 44 brochures, 39 maps, 27 books, 23 posters, 21 transparencies and 13 letterheads. Additional work during the year included the annual appointment calendar, invitations, labels, newsletters, organizational charts, programs, route slips, seals, signs, book covers, envelopes and a bumper sticker.

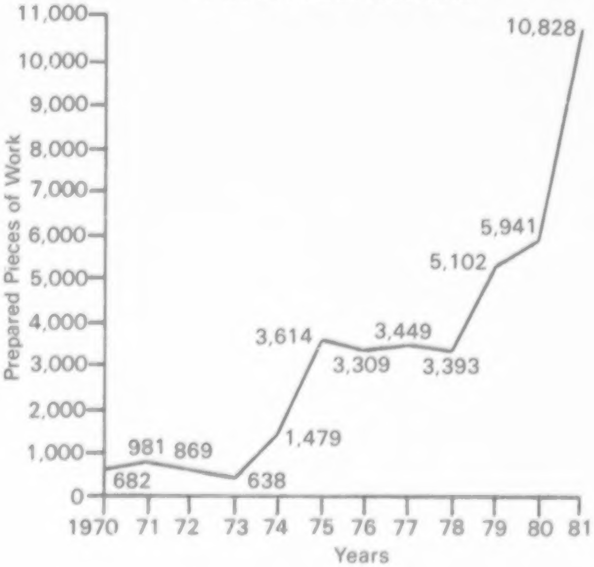
Photographic services were furnished to bureaus and divisions within the Health Department again in 1981. During the year 2,868 color slides, 4,520 black and white prints of various sizes and 310 color prints in a variety of sizes were processed. The two professional photographers on the staff also assisted in furnishing the illustrative arts section with reductions and enlargements of drawings for paste-ups in preparing publications. The number of prints and slides has doubled in less than 10 years. Graph 12-1 illustrates the growth.

GRAPH 12-1
PHOTOGRAPHERS



The illustrative arts unit prepared a record 10,828 pieces of work including displays, graphs, slides and charts. Two professional artists and one art cooperative education student were on the staff to provide illustrations for all publications. The number of pieces of art work which this section has prepared has tripled in the past three years. Graph 12-2 shows this increase.

GRAPH 12-2
ARTIST/ILLUSTRATORS



Production has continued to increase dramatically with virtually the same staff. Improving individual productivity has been a goal of this division. As a service unit for the entire department, the Division of Graphic Communication assures that attractive, professional printing and visual aids are made available to the Alabama Department of Public Health.

Division of Health Education

The principal activity of the Division of Health Education during 1981 was the Health Education-Risk Reduction Program. The goal of this program is to reduce the risk of premature death and disability from chronic diseases which result from individuals' lifestyles, particularly those diseases associated with smoking, alcohol abuse, obesity, hypertension, stress and other preventable health conditions.

During 1981 an inventory of existing health education-risk reduction activities was developed to improve working relationships with various organizations in the state. The *Directory of Community Health Education Programs in the State of Alabama*, which describes organizations which provide structured community health education programs, has been sent to more than 500 health agencies.

Developing cooperative strategies with agencies which can effect risk reduction is another pursuit of the Division of Health Education. Joint efforts have been initiated through the Health Education Section of the Alabama Public Health Association and the bureau staff. For example, the division is working in concert with the American Cancer Society and the Alabama Department of Mental Health to implement a statewide risk factor prevalence survey. Survey results will be used to determine what risk factors are predominant for school age groups. With this information the division hopes to determine what and where health education programs are most needed to meet the goal of reducing risk factors related to chronic diseases.

The Alabama Health Education-Risk Reduction Program supervises two local intervention programs in the state: (1) Bullock/Macon Counties Health Education-Risk Reduction Program is a school based health education program coordinated through the Tuskegee Area Health Education Center. (2) Mobile County Health Education-Risk Reduction Program is a community based health education program coordinated through the Franklin Memorial Primary Health Center. Each of the intervention projects has as its goal to reduce smoking and drinking of alcohol by adolescents within its target groups.

A significant contribution of the risk reduction program has been the development of a technical assistance staff. Two professional health educators have evaluated the accident prevention program as well as prepared health data for reports. Technical assistance has been made available to other divisions upon request.

The division continued its efforts to promote the use of child restraint devices in automobiles through a grant from the Office of Highway and Traffic Safety. Traffic accidents are the leading cause of death of children between the ages of one and five. Thirty presentations on the importance of child restraints were made during the year.

Surveys to determine the usage of child restraint devices have been conducted and will continue to be made in four major metropolitan areas in the state at six month intervals. These surveys measure usage rates of child restraints and the impact of educational efforts.

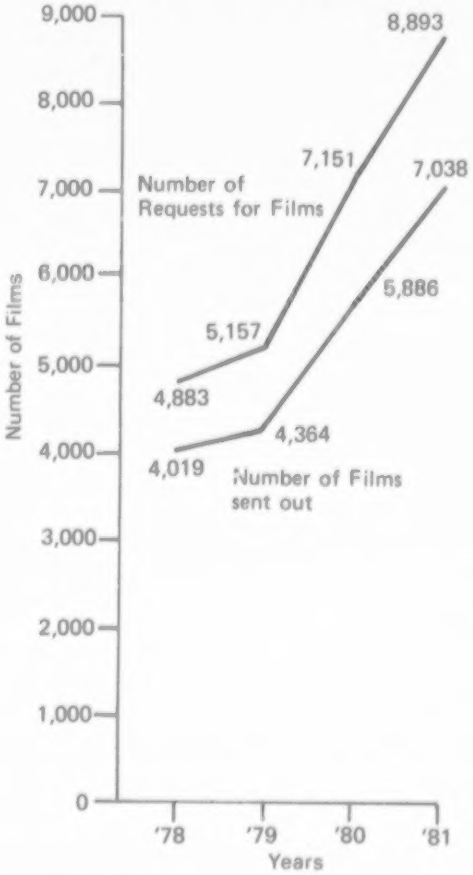
A display for the South Alabama State Fair was made which included a section dealing with child passenger safety. To promote these efforts the child restraint staff developed an information packet and fact sheet on how to begin a child restraint loaner program. The information packet contained brochures, the script for a presentation, bumper stickers, a pre-test and post-test as well as a listing of current films available on child restraints through the Film and Resource Center of the bureau. Cooperative education students assisted by making a number of presentations for this program.

The availability of information concerning the safe use of products can reduce death and disability of consumers. This year the bureau signed a cooperative agreement with the U.S. Consumer Product Safety Commission and the Alabama Attorney General's Office of Consumer Protection to promote cooperation among the agencies.

Through a grant from the U.S. Consumer Product Safety Commission, the division staff presented workshops on burn prevention and infant safety to a variety of groups.

In 1981 the film library was expanded in order to include the circulation of other health education resources. The film library acquired 61 new films during the year. Approximately 8,900 requests for films were received and approximately 7,000 films were distributed during the year. Graph 12-3 compares film distribution for the last four years.

GRAPH 12-3
FILM LIBRARY



The new *Film and Resource Catalog* includes information about films and filmstrips in addition to a listing of pamphlets, posters, reference materials and displays to be used with health education programs.

Maintaining audiovisual equipment for use by department personnel is the duty of the audiovisual technician. The acquisition of a videotape player this year made extended use of the equipment possible. During the year 296 requests were received for equipment. Of these requests, 77 were for 16 millimeter projectors, 51 for slide projectors and 44 for overhead projectors. Other equipment used during the year includes screens, public address system, cassette players, blackboard, easel, exhibit boards and other projectors.

Staff members assisted in-service training programs for other units of the department by delivering presentations on a number of topics.

Division of Health Information

The Division of Health Information keeps the public informed through the use of the mass media about activities within the department, produces health publications, assists other departmental units through editorial and reference work, and maintains the state schedule of controlled substances.

The state staff made television appearances in response to news relating to the department and on interview programs. News conferences for newspapers, television stations and radio stations were also conducted by the division. Seventeen public service announcements and 34 news releases were distributed during the year. Articles were also sent to several professional journals at the request of other bureaus and divisions.

Production and dissemination of health materials were functions of the division. Information specialists produced, edited, proofread and checked printing of a number of documents and publications including *Eighties: Decade of Delicate Decisions* (the 1980 annual report), *Alabama's Vital Events for 1980*, the *1981-82 Film and Resource Catalog, WIC Vender's Guide, Directory of Community Health Education Programs in the State of Alabama,* county and state activity definitions, forms, programs and at least 21 brochures.

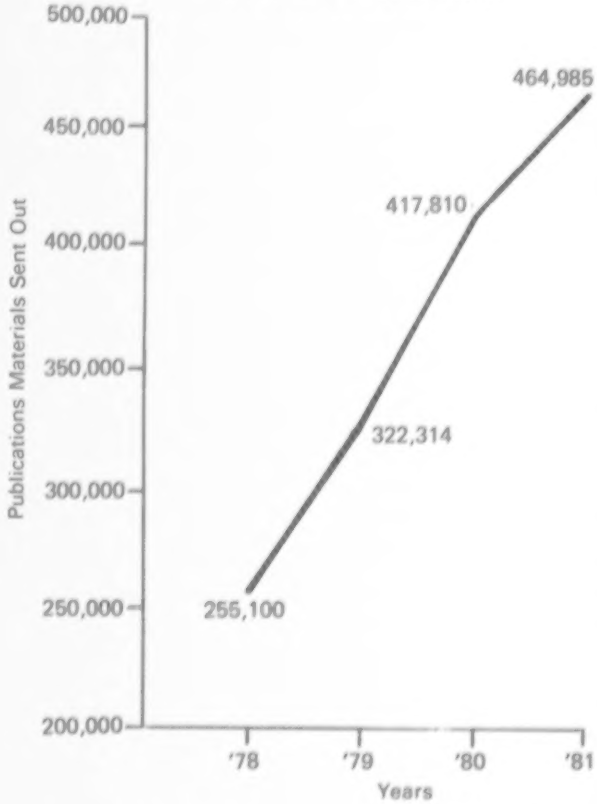
Editing regulations for other bureaus and administrations within the department was another service provided. At least three sets of regulations were checked and manuals were edited. The rewriting and revision of the personnel manual was undertaken and other information, such as that requested by the State Finance Director's office, was compiled. Staff were responsible for producing the department's appointment calendar.

During 1981 the department's monthly news magazine, *Alabama's Health*, continued to describe the accomplishments and activities of all units within the department. Areas with which the magazine dealt included department activities with outside agencies, county health department news, health promotion information and human interest articles. During the year the magazine emphasized the inclusion of more information and photographs from the county level.

The magazine remained at 12 pages in length; however the number of copies printed declined because of cutbacks mandated by increased printing costs. Initial reductions were made by revising the mailing list, and further reductions were made by limiting the number of issues sent to each county, division and bureau.

Dissemination of health materials was another function of the division. During the year more than 50,000 requests for information were received and almost 500,000 pieces of literature were mailed. As Graph 12-4 shows requests for materials have steadily increased recently.

GRAPH 12-4
REFERENCE LIBRARIAN



Expanded facilities permitted the reference library to provide improved services in assisting the public and health personnel in locating answers to health related questions, securing health information from other resource centers and maintaining materials. With the addition of the library space, an additional conference room for the department is provided. During the year the complete renovation of the library facility was planned. The library maintained more than 5,000 books and bound periodicals. A professional librarian assists the department staff in researching publications.

Despite the transfer of personnel from the Division of Narcotics and Dangerous Drugs to the Department of Public Safety, the bureau continued to perform limited functions as mandated by state law. It publishes a complete list of controlled substances once a year in newspapers with

statewide coverage. This list includes all deletions and alterations approved by the State Committee of Public Health which have occurred throughout the year. Lists are also distributed to each district attorney and prosecutor in the state. During the year changes in the list are also published and distributed after being approved by the Committee of Public Health.

BUREAU OF VITAL STATISTICS

The Bureau of Vital Statistics upgraded services to the public by converting to modern micrographics equipment during 1981. Machinery which embosses a raised seal on certified copies of vital records was also installed.

Certified copies totaling 215,959 were issued during the year, with over 20 percent of these being issued at the service counter to individuals personally appearing to request records. Even though there was a decrease in actual certified copies issued, total fees collected increased again in 1981 as the first full year of the new fee schedule was completed.

More than 170,000 certificates of birth, death, fetal death, marriage and divorce were filed for the year by the registration system.

Requests for data on vital events continued to increase, and new statistical studies were conducted with results being distributed through publications. Several instructional manuals were also prepared during the past year.

Division of Microfilm Services

Modernization was characteristic of the Division of Microfilm Services during 1981. To begin this modernization, a program was designed to convert the present microfilm from the outdated miracode system to the latest innovation in the micrographics industry, the multilevel blip count. Three intelligent microimage terminals (IMTs) were purchased to replace the Miracode II reader-printer. These new IMTs are not only capable of searching the microfilm using the multilevel blip count but also of producing a heat process dry copy print. These dry copy printers are much superior to the Miracode in quality and clarity. Since future uses of the IMT include interfacing with the present computer terminals, an operator will be able to locate a birth certificate and produce a copy in one single operation. To complete the first phase of the modernization, 3,300 rolls of film were converted to the industry standard ASI film magazine. These magazines were color-coded by years for easy storage and access.

The second phase of the modernization began by purchasing a new rotary camera. This new camera will encode all future microfilm with the multilevel blips. In addition the camera is equipped to film documents on a thin base polyester film at various reduction ratios. The use of this type film will increase the number of documents per roll and reduce the number of rolls of microfilm by one third.

The Microfilm Division continued to furnish other departments with microfilm services during 1981. Other agencies served were the Engineers and Land Surveyors

Board of Registration, the Alabama Securities Commission, and the Attorney General's office.

The project of rebinding vital record volumes was completed during 1981. Approximately 1,018 volumes were bound.

The microfilm section reproduced 53,626 certified copies of vital records, representing about 24.4 percent of the 215,959 certified copies issued.

Division of Registration Services

During 1981 the Division of Registration Services received and processed more than 170,000 vital records. The division also worked on approximately 8,500 requests for delayed birth records, actually filing more than 3,500 of these records. In addition this office serviced over 8,000 requests for certified copies of current death certificates and over 33,000 requests for certified copies of current birth certificates. Fees in excess of $159,000 were received directly from Alabama hospitals with their submitting requests for current birth certificates as allowed by 1979 legislation.

The vital statistics field program tracked every birth, death and fetal death reported to have occurred in Alabama during 1981 to ensure that a certificate was filed for each event. Every month a report of delinquent certificates was submitted to the State Committee of Public Health.

Field representatives traveled approximately 13,000 miles throughout the state in making personal visits to physicians, hospitals, funeral directors, local registrars, coroners and others. Table 12-1 gives the number of visits to each. One funeral director was successfully prosecuted for failing to file death certificates, burial receipts and monthly reports of burials.

TABLE 12-1
FIELD VISITS

Physicians	48
Hospitals	30
Local Registrars	59
Funeral Directors	13
Coroners	6
District Attorneys	8
Toxicologists	4
Probate Clerk	1
Sheriffs	2
Police Departments	2

During 1981 the *Manual for Local and Deputy Registrars of Vital Statistics* was updated. In addition a new publication, entitled *Handbook for Hospital Medical Records Personnel on Completing Certificates of Live Birth and Fetal Death,* was prepared specifically for medical records personnel.

Two one-day seminars were conducted for registrars, coroners and medical records personnel. This year the seminars dealt with several of the more complex areas which may be encountered in the completion of vital records at the local level.

In regards to completeness and timeliness in the filing of vital records, this year was documented as the best in the history of the field program.

Division of Record Services

The Division of Record Services is responsible for activities related to delivering records of vital events to the public. Preparing new birth certificates after adoptions and legitimations, issuing certificates of failure to find if the events had not been recorded, amending vital records and issuing certified copies are some of the services.

The division received and processed 179,436 pieces of mail, a decrease of 12,571 from 1980. This decrease resulted from institutions complying with 1979 House Bill 56, whereby multiple requests increased and individual requests from new parents decreased.

New birth certificates for 3,701 persons who were born in Alabama and adopted were 534 more than last year. Now all new certificates are prepared upon receipt of the final decree of adoption from the probate court whether or not the fee has been paid.

The division prepared 749 certificates of birth for persons born elsewhere and adopted in Alabama. The decrease of 650 was due to out of state adoptions being on a current basis at the beginning of 1981. The 4,450 new certificates of birth for adopted persons was a 116 decrease from last year.

The 1,935 legitimated individuals for whom new birth certificates were prepared were 64 fewer than in 1980.

Despite a 1,036 decrease, 10,436 amendments were accepted on birth records. Ninety-four amendments to death records were filed for a decrease of 30. Three more amendments to marriage records than in 1980 made a total of 36 for 1981. For the year all amendments of vital records totaled 10,566.

Mail requests resulted in 169,212 certified copies of vital records being issued. The 46,747 copies issued at the service counter made a total of 215,959 certified copies of vital records for 1981.

Several changes occurred in 1981. The searching is done almost entirely by computer, and having all years of births computerized expedites service.

Those persons needing records urgently may now call Western Union and charge the fee for vital records to their Master or Visa cards. Western Union issues checks to the Bureau of Vital Statistics, and copies of the records can be mailed in a matter of minutes.

Service to those persons who visit the service counter has been improved since the bureau makes most of the copies on the IMT copiers. Because this system eliminates

TABLE 12-2
RECAP OF RECORD SERVICE ACTIVITIES

Legitimations	1,935
Court Legitimations Pending	300
Adoptions	
Alabama Born	3,701
Out-of-state Born	749
TOTAL	4,450
Amendments	
Births	10,436
Deaths	94
Marriages	36
TOTAL	10,566
Certified Copies	
Issued by Mail	169,212
Issued at Service Counter	46,747
TOTAL	215,959
Noncertified Copies (Unpaid)	
To Copy Issuing Centers	2,980
To Child Placing Agencies	555
TOTAL	3,535
Noncertified Copies (Paid)	1,250
Fees Received:	$1,052,295.16

the pulling of the volumes, it takes less time to deliver the copies to the customers.

The Division of Record Services strives to provide the best service possible in issuing copies of vital records. With new equipment, in-service training of personnel and the full cooperation of the registrar, this goal is being reached.

Division of Statistical Services

The Statistical Services Division continued to emphasize making current information available to data users. Printed materials were distributed as quickly as they could be prepared.

Fostering a current and accurate health data base is the goal of the Bureau of Vital Statistics as it promotes voluntary cooperation among data users at all levels of government. The bureau has developed this data base in complying with an agreement with the Cooperative Health Statistics System of the Department of Health and Human Services. The bureau is currently in the final year of a three year contract. In addition the National Center for Health Statistics receives data tapes of all reports of death of Alabama residents. These data which the bureau furnishes are used in the National Death Index.

Compilations of teenage birth statistics, resident births by place of occurrence and a ten year comparison of data on vital events as well as linked records were published during 1981. These publications were in addition to the vital events, natality and mortality reports that are published each year. The Division of Statistical Services answered over 900 telephone requests for vital event data.

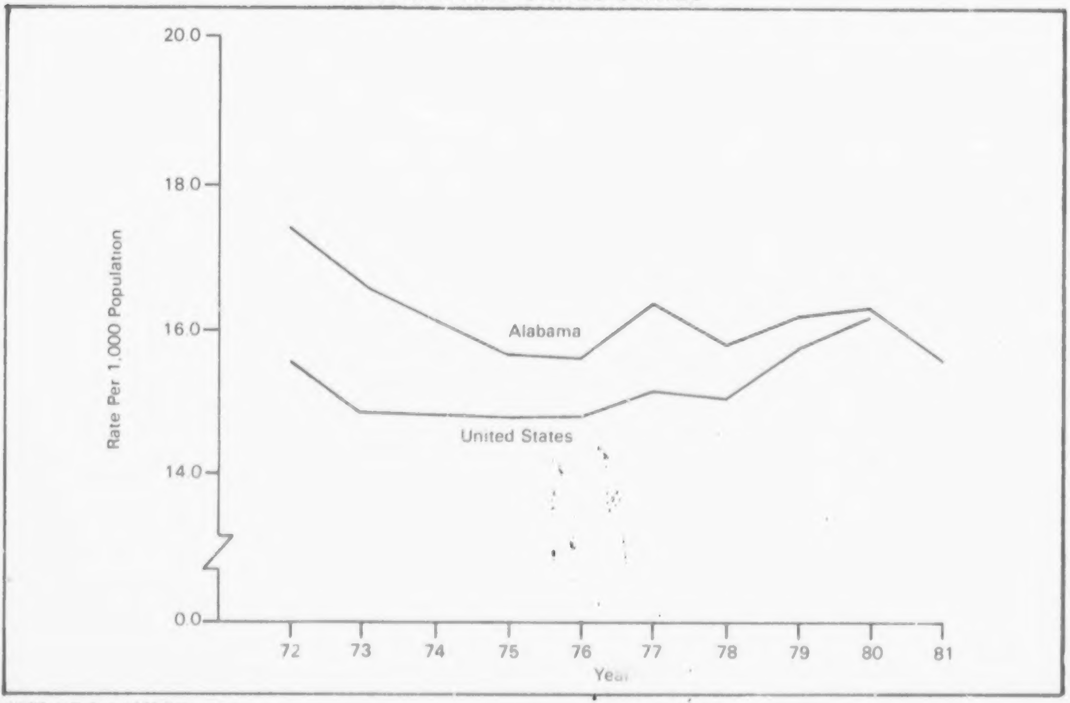
The division codes all certificates, prepares and distributes all statistical reports on vital events, and analyzes the data. The following data are based on count of vital events for 1981.

Births—The birth rate decreased during 1981 for the first time in three years. The birth rate of 15.6 is about 4.3 percent lower than the 16.3 rate recorded in 1980. Graph 12-5 compares the birth rates of Alabama and the United States.

The 61,497 Alabama births in 1981 are the lowest since 1978. There were 1,908 fewer births than in 1980.

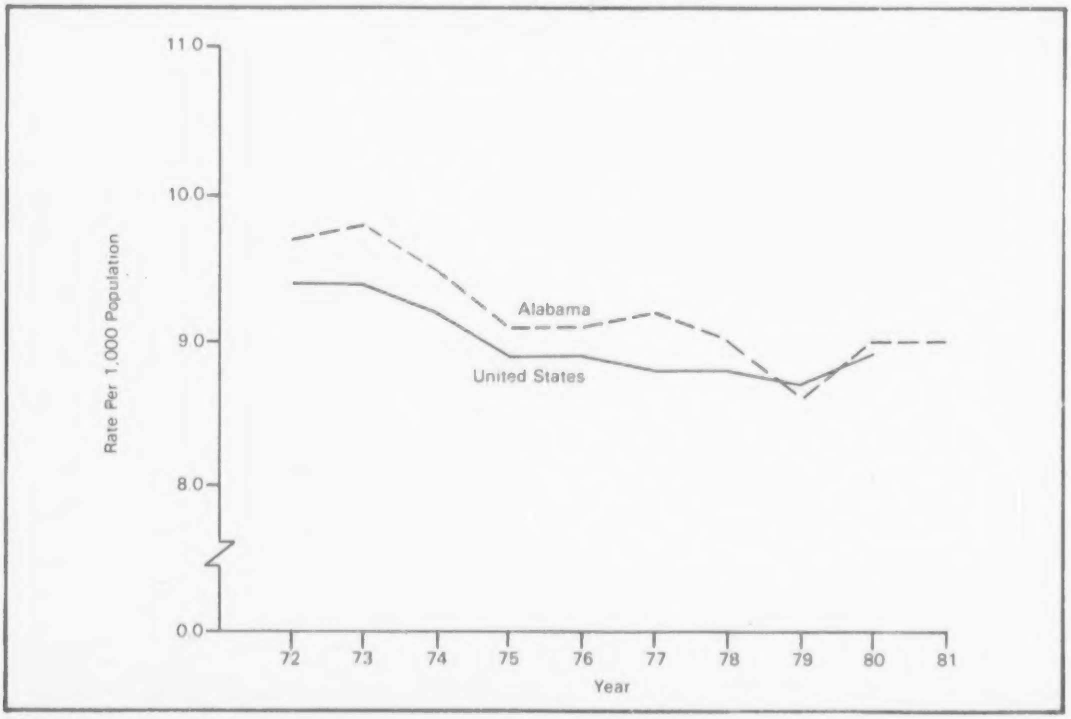
Deaths—There was no significant change in number of deaths in 1981. The 35,348 deaths of Alabama residents during 1981 produced a 9.0 mortality rate. Even though there were 43 more deaths this year, the rate remained the same as 1980. A ten year comparison of Alabama and United States mortality rates are given in Graph 12-6.

GRAPH 12-5
BIRTH RATES
ALABAMA AND UNITED STATES



NOTE: U.S. Rate 1980 Provisional
U.S. Rate 1981 Not Available

GRAPH 12-6
MORTALITY RATES
ALABAMA AND UNITED STATES



NOTE: U.S. Rate 1979, 1981, Provisional.
U.S. Rate 1981 Not Available.

Only slight changes occurred in the ranking of the ten leading causes of death in 1981. Diseases of the arteries moved up to number six, changing places with pneumonia and influenza. By replacing perinatal conditions, suicide moved back into the ranking as the tenth leading cause of death. Table 12-3 gives the number of deaths from each of the leading causes.

Heart disease continued to be the leading cause of death of Alabama residents, as it has been for more than 50 years. The 12,010 deaths attributed to heart disease in 1981 are 203 more than in 1980. The rate of 304.4 per 100,000 population is also up from the 1980 rate.

The second leading cause of death in Alabama continued to be malignant neoplasms. Cancer deaths which increased again in 1981 totaled 7,204 for a rate of 182.6 per 100,000 population.

In 1981 there were three fewer deaths from cerebrovascular diseases, the third leading cause of death. With 3,462 cerebrovascular disease deaths, the rate was 87.7, a slight decrease from 1980.

Accidents retained the fourth place as a cause of death even though there were fewer accidental deaths. A mortality rate of 54.7 resulted from 2,160 deaths from accidents.

Infant and Fetal Mortality—After a one year interruption, infant mortality seems to have resumed its decline in 1981. The 796 infant deaths and the mortality rate of 12.9 per 1,000 live births are new lows. There was a 17.1 percent decline in number of infant deaths and a decrease of 15.6 percent in mortality rate. Graph 12-7 shows that Alabama's infant mortality rate has gradually gotten closer to the national average. A corresponding decrease in neonatal mortality occurred since the 512 neonatal deaths are 17.8 percent fewer than in 1980.

Fetal deaths did not follow this trend as they increased again in 1981. The 754 fetal deaths (31 more than 1980) are an approximate 4 percent increase. The fetal mortality ratio of 12.3 is nearly 8 percent higher than 1980.

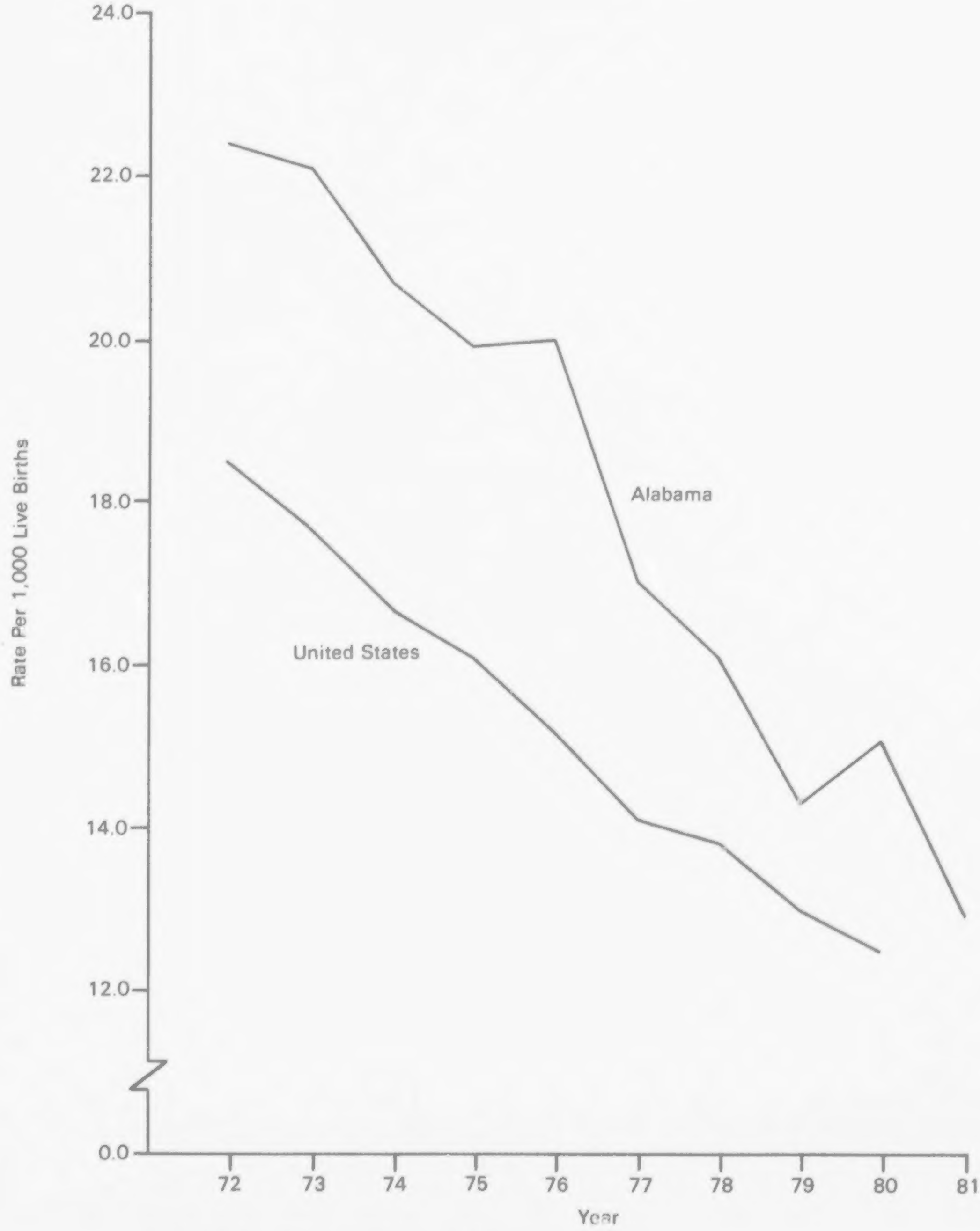
Maternal Mortality—Even though slight, maternal mortality continued to decrease. Seven women died from

TABLE 12-3
LEADING CAUSES OF DEATH
1980 and 1981

1981				1980		
Rank	Number	Rate	Cause of Death	Rank	Number	Rate
—	35,348	9.0	Total All Causes	—	35,305	9.0
1	12,010	304.4	Diseases of the Heart	1	11,807	302.6
2	7,204	182.6	Malignant Neoplasms	2	7,024	180.0
3	3,462	87.7	Cerebrovascular Diseases	3	3,465	88.8
4	2,160	54.7	Accidents	4	2,295	58.8
5	1,022	25.3	Chronic Obstructive Pulmonary Diseases & Allied Causes	5	881	22.6
6	743	18.8	Diseases of the Arteries	7	726	18.6
7	734	18.6	Pneumonia & Influenza	6	757	19.4
8	632	16.0	Diabetes Mellitus	8	664	17.0
9	554	14.0	Homicide	9	614	15.7
10	398	10.1	Suicide	—	444	11.4
—	392	9.9	Certain Conditions Originating in the Perinatal Period	10	484	12.4
—	6,037	—	All Other Causes	—	6,144	—

Rate Per 100,000 Population.

GRAPH 12-7
INFANT MORTALITY RATES
ALABAMA AND UNITED STATES



NOTE: U.S. Rate 1979 and 1980, Alabama Rate 1981 Provisional.
U.S. Rate 1981 Not Available.

complications of childbirth, labor and puerperium during 1981. With one fewer maternal deaths, the 1.1 rate per 10,000 live births is down from a 1.3 rate in 1980.

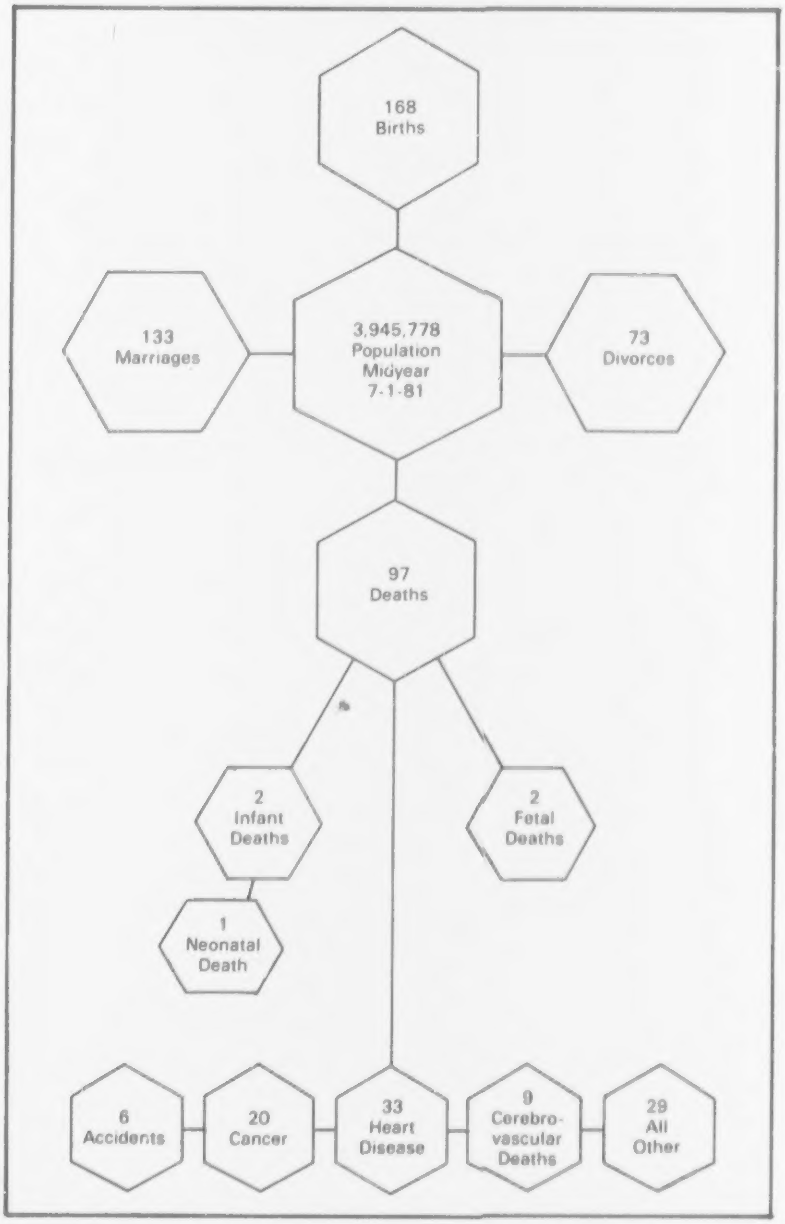
Marriages and Divorces—During 1981, 48,710 marriages were reported in Alabama. These are 308 fewer than the number in 1980. The resulting marriage rate of 12.3 per 1,000 population is a slight reduction from the 12.6 rate of 1980.

Alabama had 26,791 divorces in 1981 for a divorce rate of 6.8 per 1,000 population. The 46 more divorces than in 1980 is the smallest increase since 1977.

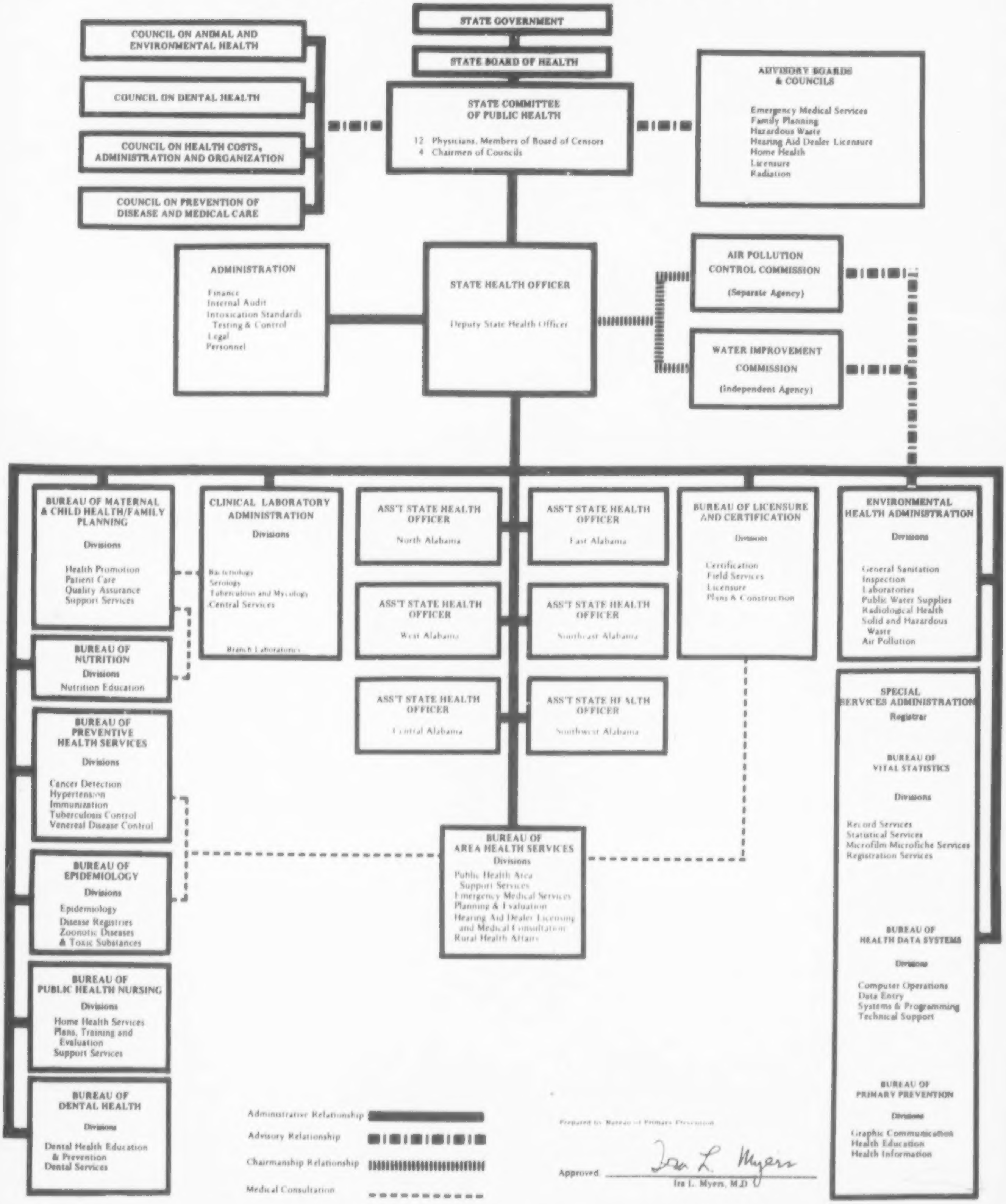
Population—Alabama's estimated midyear 1981 population was 3,945,778, based on data from the 1980 United States Census.

About 75 percent of the population was white. There were more females than males in Alabama. The sex ratio remained the same as in 1980—about 106 females per 100 males.

CHART 12-1
SPECIAL VITAL EVENTS
APPROXIMATE DAILY AVERAGE


168
Births
133
Marriages
3,945,778
Population
Midyear
7-1-81
73
Divorces
97
Deaths
2
Infant
Deaths
2
Fetal
Deaths
1
Neonatal
Death
6
Accidents
20
Cancer
33
Heart
Disease
9
Cerebro-
vascular
Deaths
29
All
Other

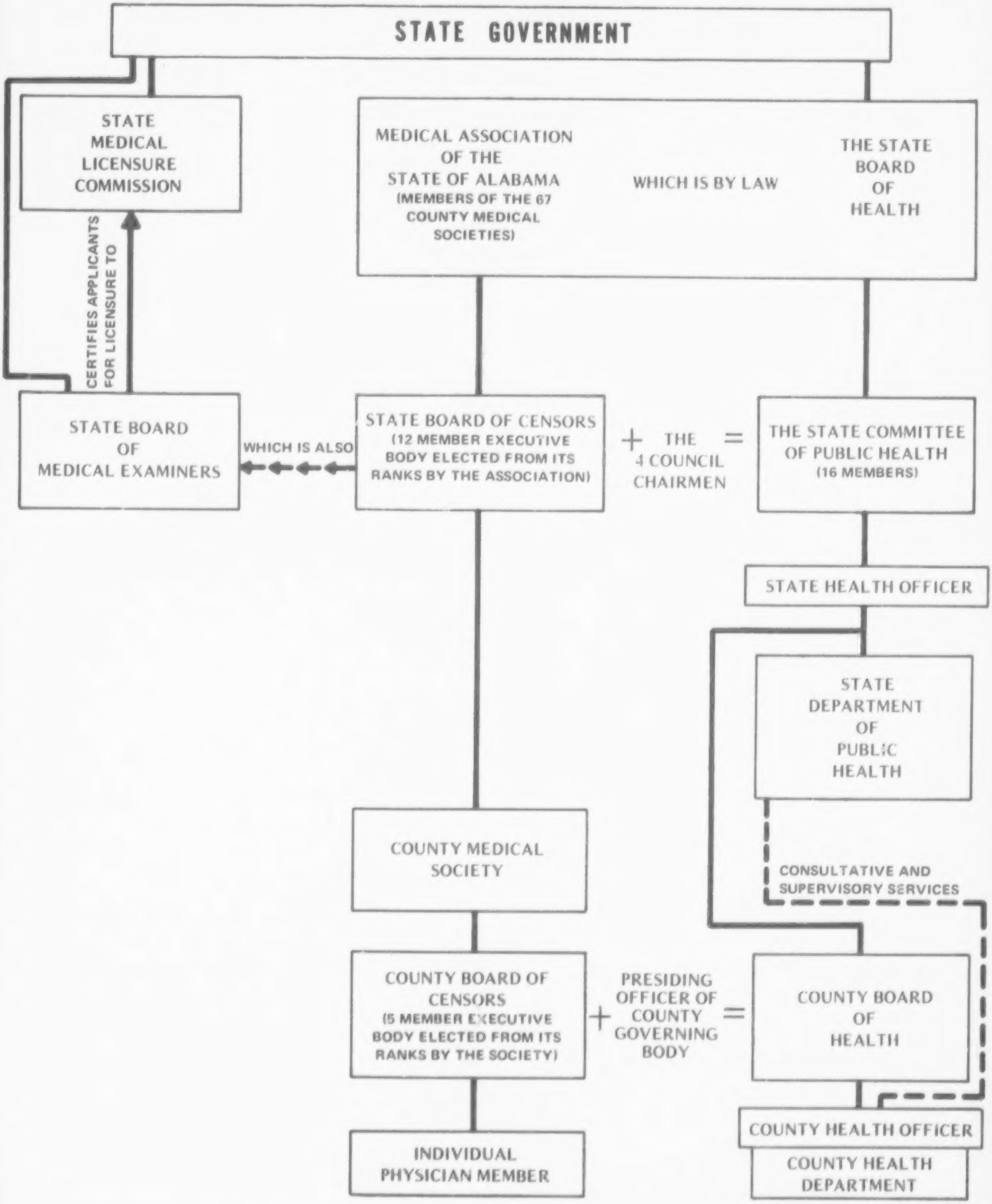
ORGANIZATION OF THE ALABAMA DEPARTMENT OF PUBLIC HEALTH


STATE GOVERNMENT
STATE BOARD OF HEALTH
COUNCIL ON ANIMAL AND ENVIRONMENTAL HEALTH
COUNCIL ON DENTAL HEALTH
COUNCIL ON HEALTH COSTS, ADMINISTRATION AND ORGANIZATION
COUNCIL ON PREVENTION OF DISEASE AND MEDICAL CARE
STATE COMMITTEE OF PUBLIC HEALTH
12 Physicians, Members of Board of Censors
4 Chairmen of Councils
ADVISORY BOARDS & COUNCILS
Emergency Medical Services
Family Planning
Hazardous Waste
Hearing Aid Dealer Licensure
Home Health
Licensure
Radiation
ADMINISTRATION
Finance
Internal Audit
Intoxication Standards Testing & Control
Legal
Personnel
STATE HEALTH OFFICER
Deputy State Health Officer
AIR POLLUTION CONTROL COMMISSION
(Separate Agency)
WATER IMPROVEMENT COMMISSION
(Independent Agency)
BUREAU OF MATERNAL & CHILD HEALTH/FAMILY PLANNING
Divisions
Health Promotion
Patient Care
Quality Assurance
Support Services
CLINICAL LABORATORY ADMINISTRATION
Divisions
Bacteriology
Serology
Tuberculosis and Mycology
Central Services
Branch Laboratories
ASS'T STATE HEALTH OFFICER
North Alabama
ASS'T STATE HEALTH OFFICER
East Alabama
ASS'T STATE HEALTH OFFICER
West Alabama
ASS'T STATE HEALTH OFFICER
Southeast Alabama
ASS'T STATE HEALTH OFFICER
Central Alabama
ASS'T STATE HEALTH OFFICER
Southwest Alabama
BUREAU OF LICENSURE AND CERTIFICATION
Divisions
Certification
Field Services
Licensure
Plans & Construction
ENVIRONMENTAL HEALTH ADMINISTRATION
Divisions
General Sanitation
Inspection
Laboratories
Public Water Supplies
Radiological Health
Solid and Hazardous Waste
Air Pollution
BUREAU OF NUTRITION
Divisions
Nutrition Education
BUREAU OF PREVENTIVE HEALTH SERVICES
Divisions
Cancer Detection
Hypertension
Immunization
Tuberculosis Control
Venereal Disease Control
SPECIAL SERVICES ADMINISTRATION
Registrar
BUREAU OF VITAL STATISTICS
Divisions
Record Services
Statistical Services
Microfilm Microfiche Services
Registration Services
BUREAU OF AREA HEALTH SERVICES
Divisions
Public Health Area Support Services
Emergency Medical Services
Planning & Evaluation
Hearing Aid Dealer Licensing and Medical Consultation
Rural Health Affairs
BUREAU OF EPIDEMIOLOGY
Divisions
Epidemiology
Disease Registries
Zoonotic Diseases & Toxic Substances
BUREAU OF HEALTH DATA SYSTEMS
Divisions
Computer Operations
Data Entry
Systems & Programming
Technical Support
BUREAU OF PUBLIC HEALTH NURSING
Divisions
Home Health Services
Plans, Training and Evaluation
Support Services
BUREAU OF PRIMARY PREVENTION
Divisions
Graphic Communication
Health Education
Health Information
BUREAU OF DENTAL HEALTH
Divisions
Dental Health Education & Prevention
Dental Services
Administrative Relationship
Advisory Relationship
Chairmanship Relationship
Medical Consultation

Prepared by Bureau of Primary Prevention

Approved: Ira L. Myers
Ira L. Myers, M.D.

MEDICAL—PUBLIC HEALTH ORGANIZATION IN ALABAMA


STATE GOVERNMENT
STATE MEDICAL LICENSURE COMMISSION
MEDICAL ASSOCIATION OF THE STATE OF ALABAMA (MEMBERS OF THE 67 COUNTY MEDICAL SOCIETIES)
WHICH IS BY LAW
THE STATE BOARD OF HEALTH
CERTIFIES APPLICANTS FOR LICENSURE TO
STATE BOARD OF MEDICAL EXAMINERS
WHICH IS ALSO
STATE BOARD OF CENSORS (12 MEMBER EXECUTIVE BODY ELECTED FROM ITS RANKS BY THE ASSOCIATION)
+ THE 4 COUNCIL CHAIRMEN =
THE STATE COMMITTEE OF PUBLIC HEALTH (16 MEMBERS)
STATE HEALTH OFFICER
STATE DEPARTMENT OF PUBLIC HEALTH
CONSULTATIVE AND SUPERVISORY SERVICES
COUNTY MEDICAL SOCIETY
COUNTY BOARD OF CENSORS (5 MEMBER EXECUTIVE BODY ELECTED FROM ITS RANKS BY THE SOCIETY)
+ PRESIDING OFFICER OF COUNTY GOVERNING BODY =
COUNTY BOARD OF HEALTH
COUNTY HEALTH OFFICER
COUNTY HEALTH DEPARTMENT
INDIVIDUAL PHYSICIAN MEMBER

ASSISTANT STATE HEALTH OFFICERS, LOCAL HEALTH OFFICERS & HEALTH SERVICES ADMINISTRATORS

County/District	Name	Title	Tel. No.	Mailing Address
PUBLIC HEALTH AREA #1				
	Betty W. Vaughan, M.D.	ASHO	353-7021	Box 1628, Decatur 35602
NORTHWEST AL REGIONAL HEALTH DEPT.			383-1231	Box 30, Tuscumbia 35674
Colbert			383-1231	Box 30, Tuscumbia 35674
Franklin			332-2700	Box 100, Russellville 35653
Lauderdale			764-7453	Box 1036, Florence 35630
TRI-COUNTY DIST. HEALTH SERVICES			353-7021	Box 1628, Decatur 35602
Cullman	Betty W. Vaughan, M.D.	DHO	739-3530	305 N. 45h Ave., N.E., Cullman 35055
Lawrence	Betty W. Vaughan, M.D.	DHO	974-1141	Box 308, Moulton 35650
Limestone	Betty W. Vaughan, M.D.	DHO	232-3200	310 W. Elm St., Athens 35611
Morgan	Betty W. Vaughan, M.D.	DHO	353-7021	Box 1628, Decatur 35602
Jackson	Lyle Haas	HSA	259-4161	Box 398, Scottsboro 35768
Madison	Lawrence L. Robey, M.D.	LHO	539-3711	Box 425, Huntsville 35804
Marion			921-3118	Box 158, Hamilton 35570
Marshall	Lyle Haas	HSA	582-3174	275 Gunter Ave., Guntersville 35976
Winston			489-5396	Box 57, Double Springs 35553
PUBLIC HEALTH AREA #2				
	E. Kenneth Aycock, M.D.	ASHO	345-4131	1101 Jackson Ave., Tuscaloosa 35401
WEST AL DISTRICT HEALTH DEPT.			345-4131	1101 Jackson Ave., Tuscaloosa 35401
Bibb	E. Kenneth Aycock, M.D.	DHO	926-9702	105 Church St., Centreville 35042
Greene	E. Kenneth Aycock, M.D.	DHO	372-9361	Box 269, Eutaw 35462
Lamar	E. Kenneth Aycock, M.D.	DHO	695-9195	Box 548, Vernon 35592
Pickens	E. Kenneth Aycock, M.D.	DHO	367-8157	Rt. 2, Box 202, Carrollton 35447
Tuscaloosa	E. Kenneth Aycock, M.D.	DHO	345-4131	1101 Jackson Ave., Tuscaloosa 35401
Fayette	John Toppins	HSA	932-5260	Box 351, Fayette 35555
Hale	J. P. Chism, Ed.D.	HSA	624-3018	Box 87, Greensboro 36744
PUBLIC HEALTH AREA #3				
	William L. Roper, M.D.	ASHO	933-9110	Box 2646, Birmingham 35202
Blount	Jesse Wallace, Acting	HSA	274-2120	Box 96, Oneonta 35121
Chilton	Ron Stutts	HSA	755-1287	Box 147, Clanton 35045
Jefferson	William L. Roper, M.D.	LHO	933-9110	Box 2646, Birmingham 35202
St. Clair	Jesse Wallace, Acting	HSA	338-3357	Box 627, Pell City 35125
Shelby	Ron Stutts	HSA	669-2171	Box 976, Columbiana 35051
Walker	Frank Banks	HSA	221-9775	Box 690, Jasper 35501
PUBLIC HEALTH AREA #4				
	Robert J. Henderson, M.D.	ASHO	236-3274	Box 488, Anniston 36202
Calhoun	John Screws	HSA	237-7523	Box 488, Anniston 36202
Chambers	Walter Pack	HSA	864-8834	Box 319, LaFayette 36862
Cherokee	Jim C. Russell	HSA	927-3132	Box 176, Centre 35960
Clay	Perry Bryant	HSA	354-2181	Box 325, Ashland 36251
Cleburne	John Screws	HSA	463-2296	Box 36, Heflin 36264
Coosa	Perry Bryant	HSA	377-2244	Box 235, Rockford 35136
DeKalb	Jim C. Russell	HSA	845-1931	Box 347, Fort Payne 35967
Etowah	Jean Foster	HSA	547-6311	Box 555, Gadsden 35902
Randolph	Ellene Mitchell, Acting	HSA	863-8981	527 Price St., Roanoke 36274
Talladega	Perry Bryant	HSA	362-2593	Box 1012, Talladega 35160
Tallapoosa	Ellene Mitchell, Acting	HSA	825-9203	Box 125, Dadeville 36853
PUBLIC HEALTH AREA #5				
	Joyce Gendzwill, M.D.	ASHO	832-3376	State Office Bldg., Room 900, Montgomery 36130
Autauga	Bobby H. Bryan	HSA	365-3349	Box G, Prattville 36067
Barbour	Russell Killingsworth	HSA	775-8324	Box 217, Clayton 36016
Bullock	Ron Wheeler	HSA	738-3030	Drawer 430, Union Springs 36089
Butler	Ziba Anderson	HSA	382-3154	Box 339, Greenville 36037
Coffee	Kenneth Ball	HSA	347-9574	Box 98, Enterprise 36330
Covington	Ziba Anderson	HSA	222-1175	Box 186, Andalusia 36420
Crenshaw	Ron Wheeler	HSA	335-3401	Box 326, Luverne 36049
Dale	Charles Oliver	HSA	774-5146	Box 397, Ozark 36360
Elmore	Bobby H. Bryan	HSA	567-5171	Box 316, Wetumpka 36092
Geneva	Kenneth Ball	HSA	684-2257	Box 386, Geneva 36340
Henry	Russell Killingsworth	HSA	585-2660	Box 86, Abbeville 36310
Houston	Marilyn E. Crumpton, M.D.	LHO	793-6404	Drawer 2087, Dothan 36302
Lee			745-5765	Box 2207, Opelika 36801
Lowndes	Virginia Little	HSA	548-2161	Box 35, Hayneville 36040
Macon	Walter Pack	HSA	727-1800	Box 27, Tuskegee 36083
Montgomery	Mary G. Dorrough, M.D.	LHO	263-6671	Box 4008, Montgomery 36195
Pike	Ron Wheeler	HSA	566-2860	Box 425, Troy 36081
Russell	Ron Wheeler	HSA	297-0251	Box 548, Phenix City 36867
PUBLIC HEALTH AREA #6				
	VACANT	ASHO		
	Tom N. Phillips	HSA	832-3186	State Office Bldg., Room 307, Montgomery 36130
GULF COAST DISTRICT HEALTH DEPT.			937-9561	Box 150, Bay Minette 36507
Baldwin	C. P. St. Amant, Jr., M.D.	DHO	937-9561	Box 150, Bay Minette 36507
Conecuh	C. P. St. Amant, Jr., M.D.	DHO	578-1952	Box 208, Evergreen 36401
Escambia	C. P. St. Amant, Jr., M.D.	DHO	867-5765	Box 66, Brewton 36426
Choctaw	Richard Jayne, Acting	HSA	459-2494	315 E. Pushmataha St., Butler 36904
Clarke	Bill Coleman	HSA	275-3772	Box 477, Grove Hill 36451
Dallas	S. D. Waldrop, M.D.	LHO	875-4401	Box K, Selma 36701
Marengo	Charles Shields	HSA	295-4205	Box 454, Linden 36748
Mobile	Alfred R. Stumpe, M.D.	LHO	690-8101	Box 2867, Mobile 36652
Monroe	Virginia Little	HSA	575-3109	Box 609, Monroeville 36460
Perry	J. P. Chism, Ed.D.	HSA	683-6153	Box 119, Marion 36756
Sumter	Thomas C. Stuart	HSA	652-7972	Drawer 340, Livingston 35470
Washington	Bill Coleman	HSA	847-2245	Box 417, Chatom 36518
Wilcox	S. D. Waldrop, M.D.	LHO	682-4515	Box 27, Camden 36726